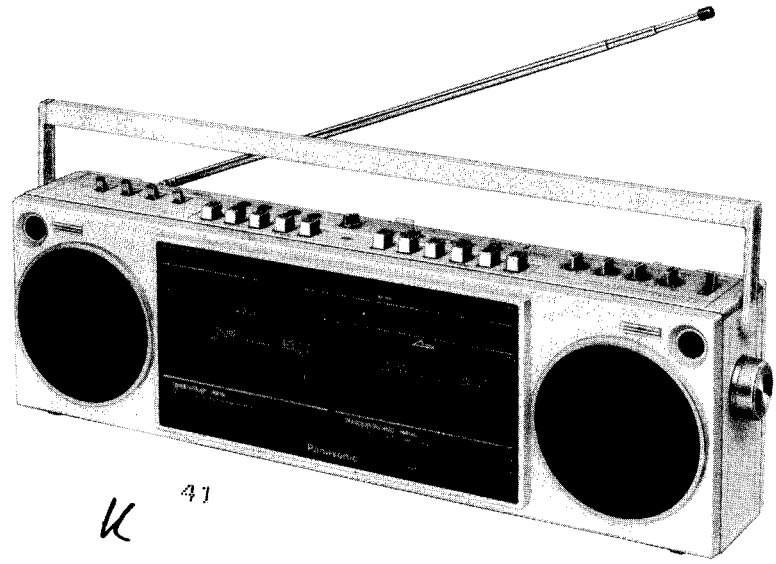
ORDER NO. RD81125235C1

Service Manual

Radio Cassette

RX-D30/©

FM-AM-FM STEREO RADIO CASSETTE RECORDER



■ SPECIFICATIONS

General:

Power Requirement:	AC; 110~115/115~127/200~220/230~250V, 50/60Hz Battery; 9V (Six "D" Size Flashight Batteries) (Panasonic UM-1 or equivalent) Car battery; with optional car adaptor RP-917H
Power Consumption:	15W (AC only)
Power Output:	7W
Speaker:	Woofer; 10cm ($4_2^{\prime\prime}$) PM Dynamic Speaker (3Ω) Tweeter; 2cm ($^{13}/_{16}^{\prime\prime}$) Ceramic Speaker (2kΩ)
Input:	MIC; sensitivity 0.25mV/applicable microphone impedance 200~600Ω Line in; sensitivity 250mV/220kΩ over DC IN; 9V
Output:	Line out; sensitivity 420mV/5~6kΩ under Ext SP; 3Ω~8Ω Headphones; 32Ω
Dimensions:	507mm(W)×154mm(H)×117mm(D) ($20\times6^{1}/_{16}\times4^{5}/_{8}$)″
Weight:	3.9kg (8 lb. 10 oz) without batteries

Radio Section:

Radio Frequency Range:	FM; 88~108MHz AM; 525~1610kHz
Intermediate Frequency:	FM; 10.7MHz AM; 455kHz
Sensitivity:	FM; 2.1μV/50mW output AM; 100μV/m/50mW output

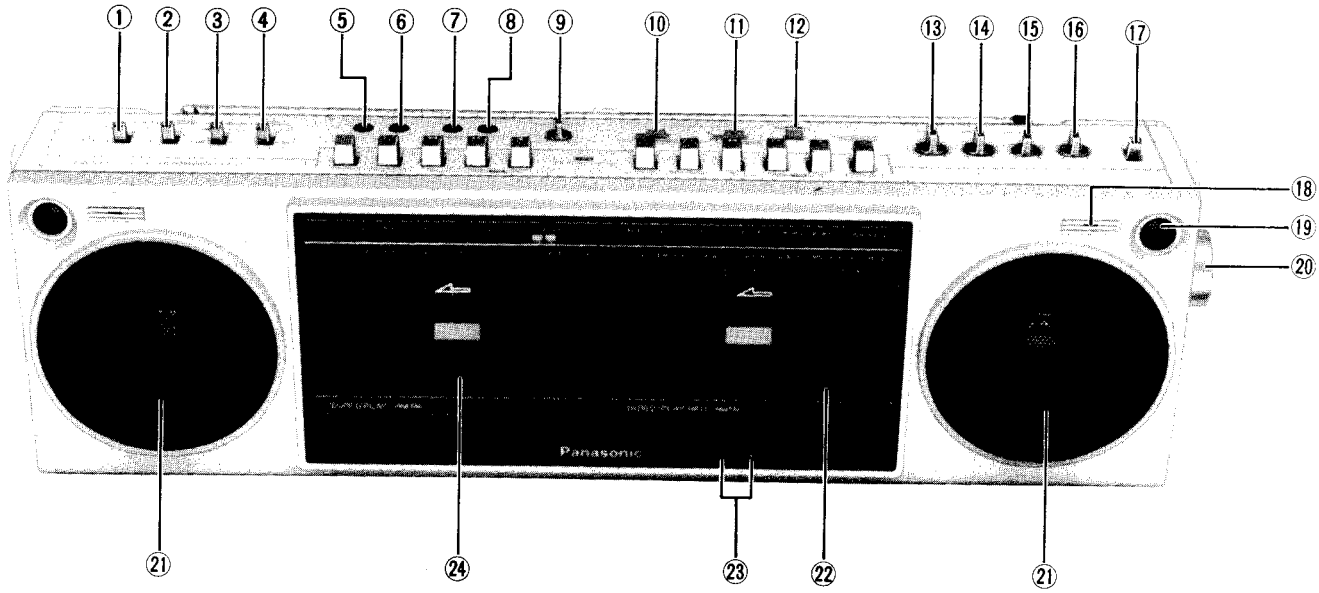
Tape Deck Section:

Frequency Response:	Tape 1 (playback only) 30~14,000Hz (with normal tape) 30~15,000Hz (with CrO_2/Metal tape) Tape 2 (recording/playback) 40~13,000Hz (with normal tape) 40~14,000Hz (with CrO_2 tape) 40~14,000Hz (with Metal tape)
Recording system:	AC bias, AC erase (Tape 2)
Tape Speed:	4.8cm/s, ($1^{7}/_{8}$ ips)
Wow and Flutter:	0.11% (WRMS)
Program Time:	1 hour with C-60 cassette tape
Track System:	4-track 2 channel stereo recording and playback

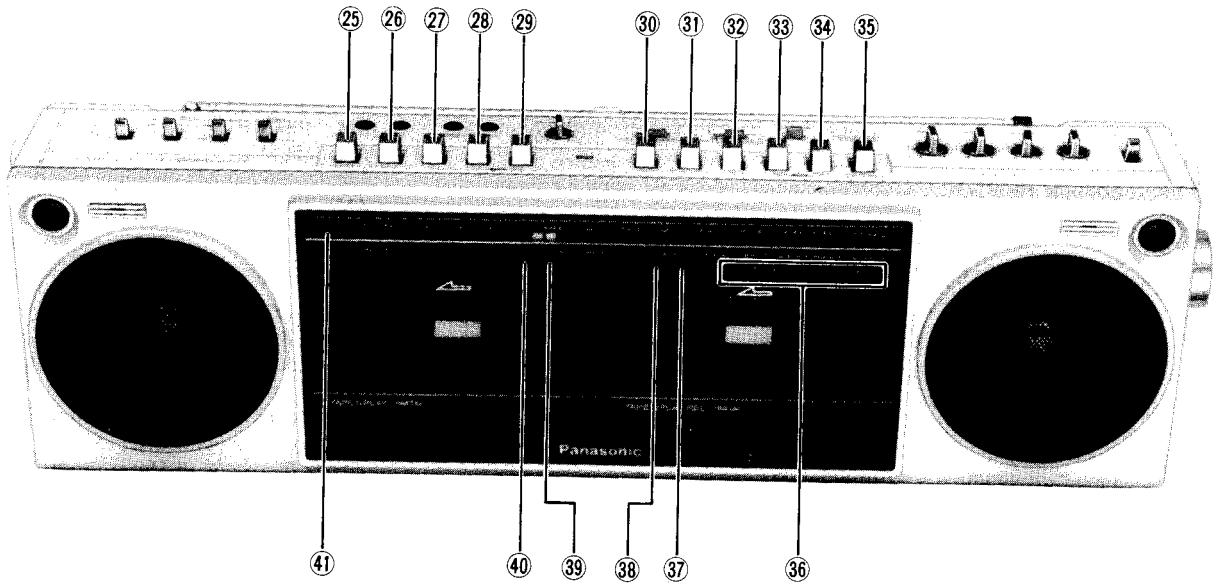
Weights and dimensions shown are approximate.
(Les poids et dimensions mentionnes sont approximatits.)
Specifications are subject to change without notice.

Panasonic®

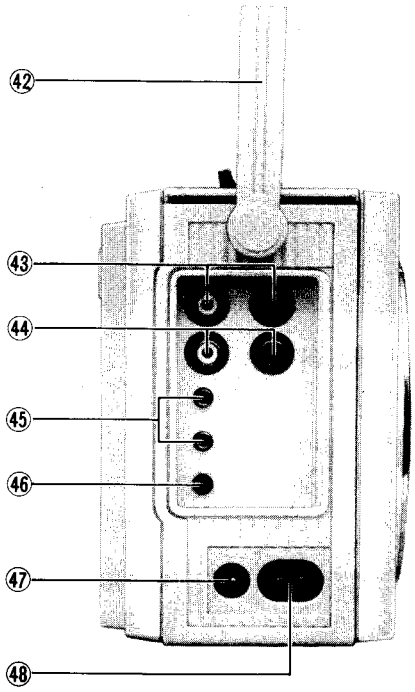
LOCATION OF CONTROLS AND COMPONENTS



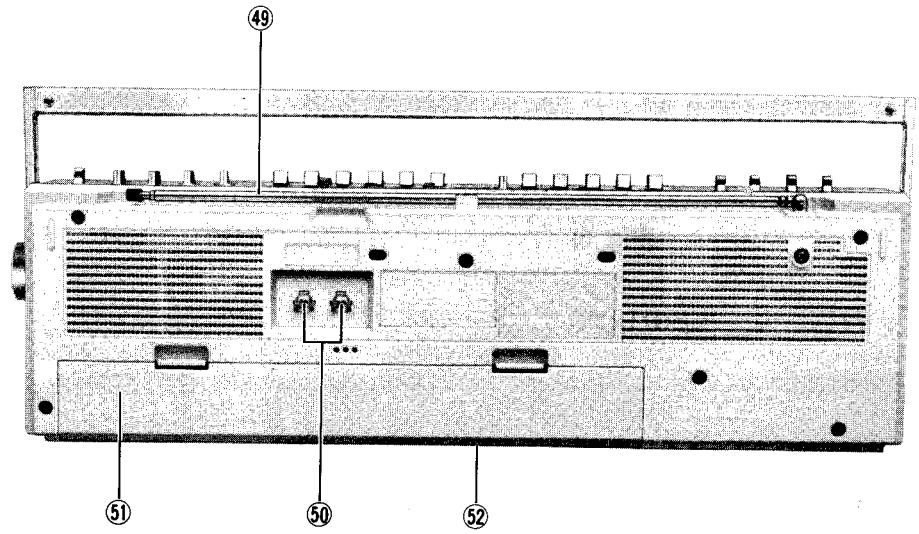
[Fig. 1]



[Fig. 2]



[Fig. 3]

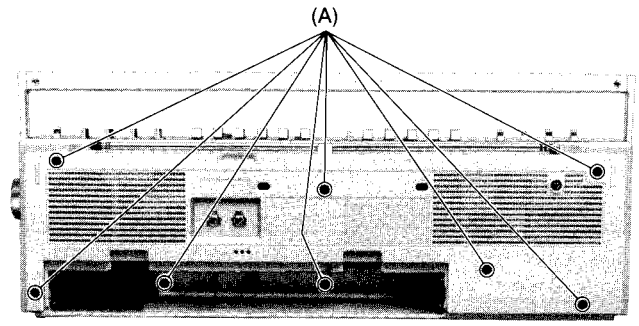


[Fig. 4]

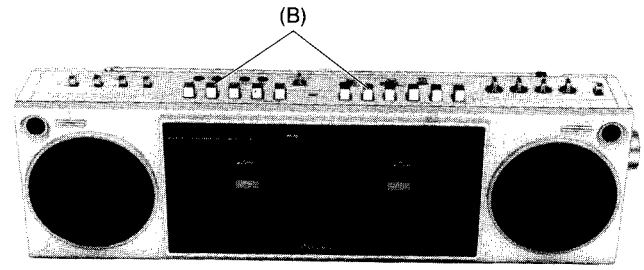
① Function Selector [LINE IN/RADIO/POWER OFF]
② Mode Selector/ Beat Proof Switch [AMBIENCE/I, STEREO/I, MONO/II]
③ TPS Switch/Dubbing Switch [TAPE 1/ON, TAPE 2/OFF]
④ Tape Operation Selector [AUTO/SINGLE]
⑤ Microphone Jack [L]
⑥ Microphone Jack [R]
⑦ Monitor Headphone Jack [TAPE [1] MONITOR PHONES]
⑧ Mixing Microphone Jack [MIXING MIC]
⑨ Mixing Level Control [MIXING LEVEL]
⑩ Tape Selector [NOR, CrO_2/METAL]
⑪ Tape Selector [NOR/CrO_2/METAL]
⑫ Record Muting Button [REC MUTE]
⑬ Bass Control [BASS]
⑭ Treble Control [TREBLE]
⑮ Balance Control [BALANCE]
⑯ Volume Control [VOLUME]
⑰ Band Selector [FM/AM]
⑱ Built-in Microphones [MIC]
⑲ Speakers (Tweeter) [2kΩ]
⑳ Radio Tuning Control [TUNING]
㉑ Speakers (Woofer) [3Ω]
㉒ Cassette Compartment [TAPE [2]]
㉓ Tape Counter and Reset Button [COUNTER]
㉔ Cassette Compartment [TAPE [1]]
㉕ Pause Button [II PAUSE]
㉖ Stop/Eject Button [■ STOP/▲ EJECT]
㉗ Fast Forward Button [◀◀ FF]
㉘ Rewind Button [▶▶ REW]
㉙ Playback Button [◀ PLAY]
㉚ Pause Button [II PAUSE]
㉛ Stop/Eject Button [■ STOP/▲ EJECT]
㉜ Fast Forward Button [◀◀ FF]
㉝ Rewind Button [▶▶ REW]
㉞ Playback Button [◀ PLAY]
㉟ Record Button [○ RECORD]
㊱ LED Level Indicator [LEVEL]
㊲ Recording Indicator
㊳ Dubbing Indicator [DUBBING]
㊴ Tape Program Sensor Indicator [TPS]
㊵ Power/Battery Indicator [POWER/BATT]
㊶ FM Stereo Indicator [FM STEREO]
㊷ Handle
㊸ Line Input Jacks [LINE IN] (250mV/220kΩ)
㊹ Line Output Jacks [LINE OUT] (420mV/5~6kΩ)
㊺ External Speaker Jacks [EXT SP 3—8Ω]
㊻ Headphone Jack [PHONES] (32Ω)
㊼ DC Input Jack [⊖-⊖-⊕ DC IN 9V]
㊽ AC Socket [AC IN~]
㊾ FM Telescopic Antenna
㊿ External Antenna Terminals [AM ANT/FM ANT]
(51) Battery Compartment
(52) Voltage Selector [VOLTAGE SELECTOR] (bottom)

* Cassette Deck Controls
⑩, ㉕~㉙ .....Tape [1]
⑪, ㉓, ㉚~㉟ .....Tape [2]

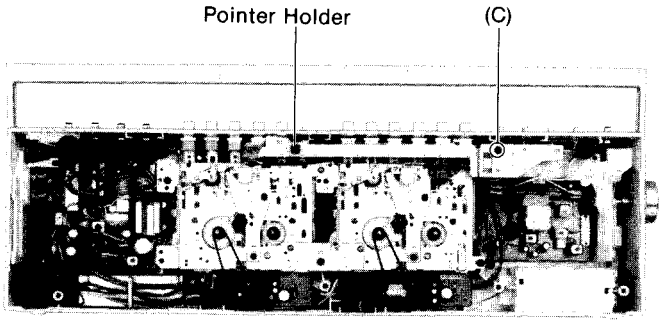
DISASSEMBLY INSTRUCTIONS



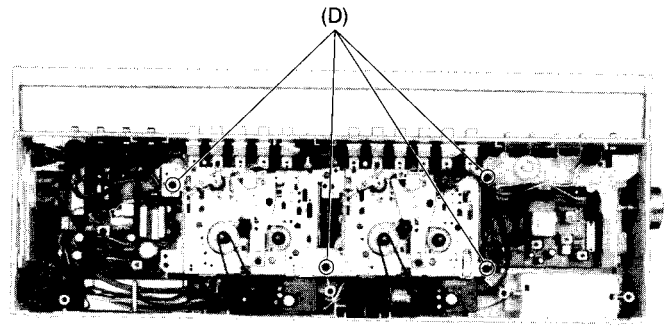
[Fig. 5]



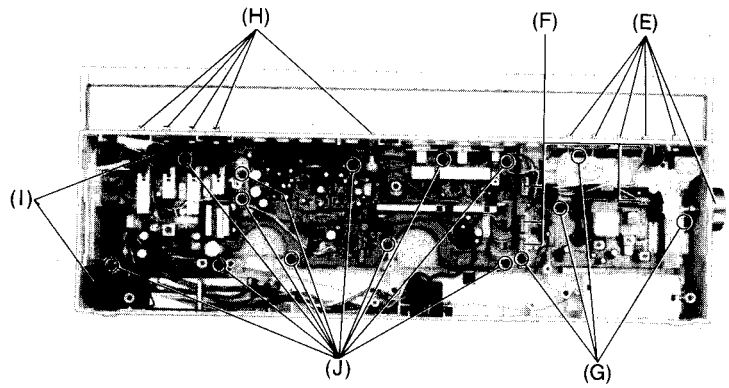
[Fig. 6]



[Fig. 7]



[Fig. 8]

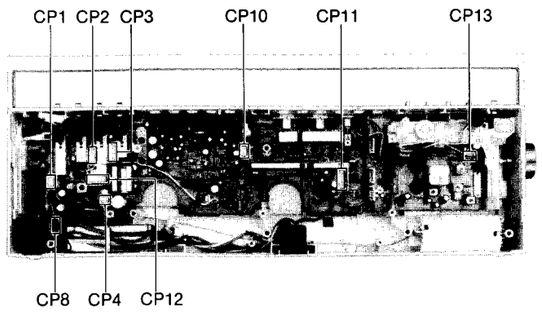


[Fig. 9]

Procedure	To remove —.	Remove—.	Shown in Fig. —.
1	Front Cabinet *1	Screw (3.5×45) .....(A)×8	5
2		Push the Eject Buttons .....(B)×2	6
3	Pointer Guide *2	Red Screw (3×12) .....(C)×1	7
4	Mechanism	Red Screw (3×12) .....(D)×4	8
5	Radio Circuit Board	Knob .....(E)×6	9
6		Mic & Socket .....(F)×5	9
7		Red Screw (3×12) .....(G)×4	9
8	Audio Circuit Board	Knob .....(H)×5	9
9		Mic & AC IN Jack .....(I)×2	9
10		Red Screw (3×12) .....(J)×11	9

To reassemble, reverce the above procedure and note the following.
*1. Set the pointer to minimum frequency and turn the tuning knob to fully counter-clockwise.
*2. Set the pointer holder to minimum frequency.

■ CONNECTOR POSITION

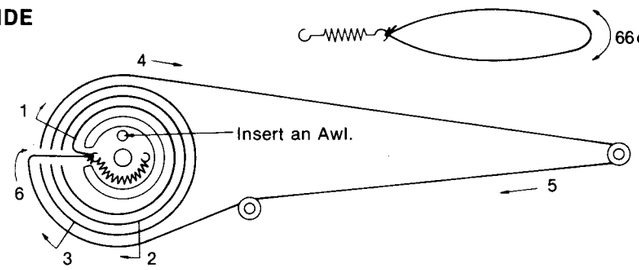


[Fig. 10]

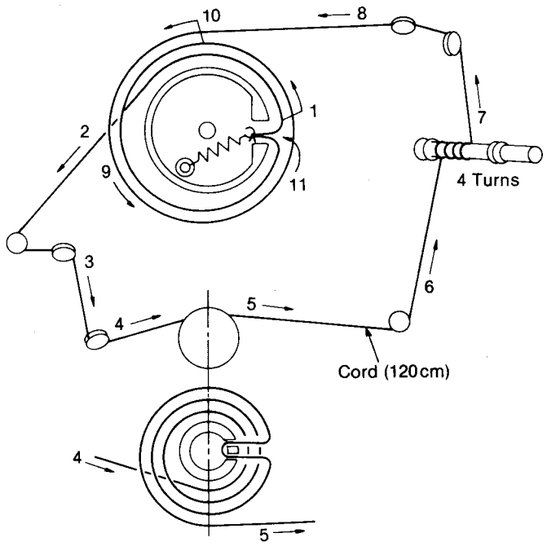
CP1: Speaker Connector
CP2: Mechanism Connector
CP3: Mechanism Connector
CP4: LED Connector
CP8: AC IN Jack Connector
CP10: Playback Head Connector
CP11: Record/Playback Head Connector
CP12: Erase Head Connector
CP13: Antenna Connector

DIAL THREADING

■ POINTER GUIDE SIDE



■ CIRCUIT BOARD SIDE



[Fig. 11]

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set tone control to maximum.
3. Set band switch to AM or FM.
4. Set function selector to radio
5. Set balance control to center.
6. Supply DC 9V through the battery terminals.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM and FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		AM-IF ALIGNMENT					
(1)	AM	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455kHz 30% Mod. at 400Hz	Point of non-interference. (on/about 600kHz)	Output meter across voice coil.	T2 (AM 1st IFT)	Adjust for maximum output.
		AM-RF ALIGNMENT					
(2)	AM	〃	511kHz	Tuning capacitor fully closed.	〃	L4 (AM OSC Coil)	Adjust for maximum output.
(3)	AM	〃	1650kHz	Tuning capacitor full open.	〃	CT4 (AM OSC Trimmer)	〃
(4)	AM	〃	550kHz	Tune to signal.	〃	(＊1) L3 (AM ANT Coil)	Adjust for maximum output. Adjust L3 by moving coil bobine along ferrite core.
(5)	AM	〃	1500kHz	〃	〃	CT3 (AM ANT Trimmer)	Adjust for maximum output. Repeat steps (2)～(5).
	(＊1) Cement antenna bobbin with wax after completing alignment.						
		FM-IF ALIGNMENT					
(6)	FM	Connect to test point ❶ through 0.01μF. Negative side to test point ❸.	10.7MHz (400kHz SWP.)	Point of non-interference. (on/about 90MHz)	Connect vert. amp. of scope to test point ❸. Negative side to test point ❷.	T1 (FM 1st IFT) (Primary)	Adjust for maximum amplitude. (Refer to Fig. 12.)
(7)	FM	〃	〃	〃	〃	T3 (FM 2nd IFT) (Secondary)	Adjust for maximum amplitude. (Refer to Fig. 13.)
		FM-RF ALIGNMENT					
(8)	FM	Connect to test point ❶ through FM dummy antenna. Negative side to test point ❷.	87.5MHz	Tuning capacitor fully closed.	Output meter across voice coil.	L2 (FM OSC Coil)	Adjust for maximum output
(9)	FM		108MHz	Tuning capacitor fully open.	〃	CT2 (FM OSC Trimmer)	〃
(10)	FM	〃	90MHz	Tune to signal.	〃	L1 (FM ANT Coil)	(＊2) Adjust for maximum output.
(11)	FM	〃	106MHz	〃	〃	CT1 (FM ANT Trimmer)	(＊2) Adjust for maximum output. Repeat steps (8)～(11).
	(＊2) Three output responses will be present; proper tuning is the center frequency.						

■ SEPARATION ALIGNMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Adjustment of pilot signal.	98MHz, 60dB	❸...(+) side Earth...(−) side	VR1	19kHz	Adjust VR1 for 19kHz (±150Hz) reading on electronics counter.

■ AUDIO ADJ

ITEM
Azimuth
Playback level
Bias oscillation frequency
Erase current
Bias trap
Bias current

■ TEST POINT

＊ Please refer

BIA
CURR
VR

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum.	5. Set balance control to center.
2. Set tone control to maximum.	6. Supply DC 9V through the battery terminals.
3. Set band switch to AM or FM.	7. Output of signal generator should be no higher than necessary to obtain an output reading.
4. Set function selector to radio	

■ AM and FM ALIGNMENT

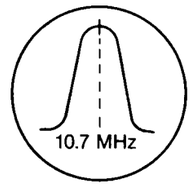
	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		AM-IF ALIGNMENT					
(1)	AM	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455kHz 30% Mod. at 400Hz	Point of non-interference. (on/ about 600kHz)	Output meter across voice coil.	T2 (AM 1st IFT)	Adjust for maximum output.
		AM-RF ALIGNMENT					
(2)	AM	〃	511kHz	Tuning capacitor fully closed.	〃	L4 (AM OSC Coil)	Adjust for maximum output.
(3)	AM	〃	1650kHz	Tuning capacitor full open.	〃	CT4 (AM OSC Trimmer)	〃
(4)	AM	〃	550kHz	Tune to signal.	〃	(*1) L3 (AM ANT Coil)	Adjust for maximum output. Adjust L3 by moving coil bobine along ferrite core.
(5)	AM	〃	1500kHz	〃	〃	CT3 (AM ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
	(*1) Cement antenna bobbin with wax after completing alignment.						
		FM-IF ALIGNMENT					
(6)	FM	Connect to test point ▼1 through 0.01μF. Negative side to test point ▼3.	10.7MHz (400kHz SWP.)	Point of non-interference. (on/ about 90MHz)	Connect vert. amp. of scope to test point ▼2. Negative side to test point ▼3.	T1 (FM 1st IFT) (Primary)	Adjust for maximum amplitude. (Refer to Fig. 12.)
(7)	FM	〃	〃	〃	〃	T3 (FM 2nd IFT) (Secondary)	Adjust for maximum amplitude. (Refer to Fig. 13.)
		FM-RF ALIGNMENT					
(8)	FM	Connect to test point ▼1 through FM dummy antenna. Negative side to test point ▼3.	87.5MHz	Tuning capacitor fully closed.	Output meter across voice coil.	L2 (FM OSC Coil)	Adjust for maximum output
(9)	FM		108MHz	Tuning capacitor fully open.	〃	CT2 (FM OSC Trimmer)	〃
(10)	FM	〃	90MHz	Tune to signal.	〃	L1 (FM ANT Coil)	(*2) Adjust for maximum output.
(11)	FM	〃	106MHz	〃	〃	CT1 (FM ANT Trimmer)	(*2) Adjust for maximum output. Repeat steps (8)~(11).
	(*2) Three output responses will be present; proper tuning is the center frequency.						

■ SEPARATION ALIGNMENT

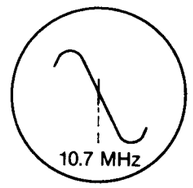
ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Adjustment of pilot signal.	98MHz, 60dB	▼2 ...(+) side Earth...(−) side	VR1	19kHz	Adjust VR1 for 19kHz (±150Hz) reading on electronics counter.

■ AUDIO ADJUSTMENT

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Azimuth	QZZCFM (8kHz, −20dB)	EXT SP	Maximum output.	Azimuth screw	Playback mode. Adjust tape 1 & 2.
Playback level	QZZCFM (315Hz, 0dB)	LED Meter	0.42±0.02V	VR401	Playback mode. Adjust VR401 so that the 4th LED from right bigins to fade out. Adjust tape 1 only.
Bias oscillation frequency	——	▼302...(+) ▼301...(−)	46±0.5kHz	L301	Record mode Beat proof switch→I→II Tape selector→Metal Adjust tape 2 only.
Erase current	Use metal tape	▼102...(+) ▼202...(−)	150±10mV	VR302	Record mode Beat proof switch→I Tape selector→Metal Adjust tape 2 only.
Bias trap	——	▼101...(Lch) ▼201...(Rch) ▼102...(−)	0±0.5dB	L101 (Lch) L201 (Rch)	Record mode Beat proof switch...I→II Adjust tape 2 only.
Bias current	Use metal tape	▼101...(Lch) ▼201...(Rch) ▼102...(−)	Metal 9.5±0.3mV	Metal VR101 (Lch) VR201 (Rch)	Record mode Beat proof switch→I Tape selector→Metal Adjust tape 2 only.



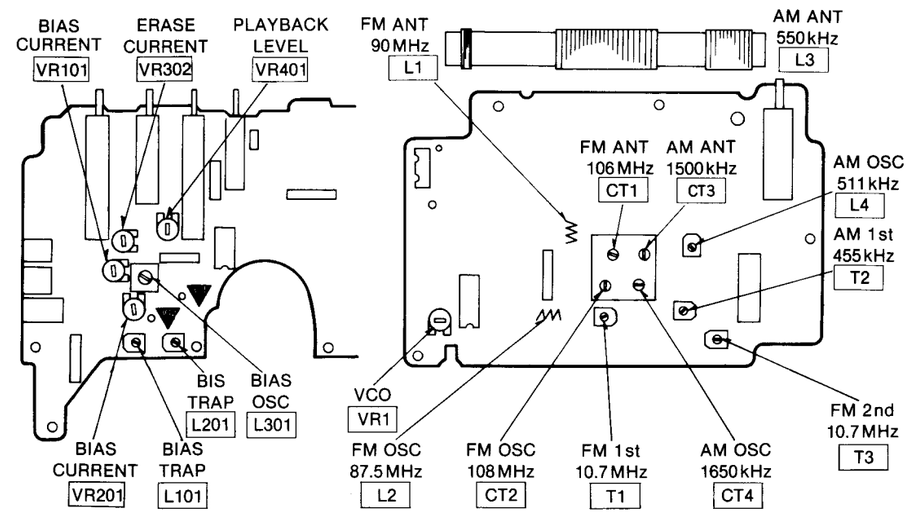
[Fig. 12]



[Fig. 13]

■ TEST POINT

* Please refer to Circuit Board which is located test points



[Fig. 14]

RX-D30/©

SCHEMATIC DIAGRAM MODEL RX-D30/© (RADIO &

Notes:

1. S1-1~S1-12.....Record/playback switch in "Playback" position.
   (①...Playback, ③...Record).
2. S2-1~S2-5 .....Tape switch (Tape 2) in "NOR" position.
   (①...NOR, ②...CrO_2, ③...METAL).
3. S3-1, S3-2 .....Tape switch (Tape 1) in "NOR" position.
   (①...NOR, ③...CrO_2/METAL).
4. S4-1~S4-6 .....Function selector in "TAPE" position.
   (①...TAPE, ②...RADIO, ③...LINE IN).
5. S5-1~S5-4 .....Mode/boat proof switch in "STEREO/I" position.
   (①...AMBIENCE/I, ②...STEREO/I, ③...MONO/II).
6. S6-1~S6-3 .....Band switch in "FM" position. (①...FM, ③...AM).
7. S7-1~7-6.....TPS/dubbing switch in "TAPE 1/ON" position.
   (①...TAPE 1/ON, ③...TAPE 2/OFF).
8. S8-1, S8-2 .....Tape operation switch in "SINGLE" position.
   (①...SINGLE, ③...AUTO).
9. S9-1, S9-2 .....Rec mute switch.
10. DC voltage measurements are taken with electronics voltmeter based on negative terminal of battery.
    [ ]...FM, ( )...AM, < >...Recording
11. Battery current No signal 130mA
    Maximum output radio 1.1A
    Maximum output tape 1.1A
12. VR1 .....VCO adjustment.
    VR101, 201 .....Bias current adjustment.
    VR102, 202 .....Bass control.
    VR103, 203 .....Treble control.
    VR104, 204 .....Volume control.
    VR301 .....Mixing control.
    VR302 .....Erase current adjustment.
    VR401 .....Playback level adjustment.
13. **Important safety notice**
    The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards.
    When servicing it is essential that only manufacturer's specified parts be seud for the critical components in the shaded areas of the schematic.

IC1 AN7213 FM RF AMP · D1 MA150TA AOC · D2 RVDSD113LF AFC · Q1 2SC1009 IF AMP · IC2 AN7220A FM/AM IF AMP · Q2 2SD601 AF AMP · IC3 RVIBA1330 MPX · IC103 RVIBA6133 AMBIENCE AMP · D401~405 LN05263P LEVEL IND

Q301 2SD601 MIX AMP · Q302 2SD601 EQ AMP · Q310 2SB709 SWITCHING · D326 MA150 SWITCHING · IC101, 102 RVIBA328 EQ AMP · D327 MA151K SWITCHING · D303, 304 MA151WK SWITCHING · Q101, 102, 201, 202 2SC1788 MONITOR AMP · Q103, 203 2SD601 SWITCHING · Q106, 206 2SC2001 SWITCHING · Q108, 208 2SD596 SWITCHING · Q304, 305 2SC1317 BIAS OSC · Q109, 209, 306 2SD601 AGC · Q110, 111, 210, 211 2SD601 AF AMP · D102, 103, 202, 203 MA150 AGC · D321, 322 RVDKB262D AOC · Q112, 212 2SD601 REC AMP · Q113, 213 2SD601 LINE AMP

SCHEMATIC DIAGRAM MODEL RX-D30/© (RADIO & AUDIO)

IC1 **AN7213** FM RF AMP
D1 **MA150TA** AOC
D2 **RVDSD113LF** AFC
Q1 **2SC1009** IF AMP
IC2 **AN7220A** FM/AM IF AMP
Q2 **2SD601** AF AMP
IC3 **RVIBA1330** MPX
IC103 **RVIBA6133** AMBIENCE AMP
D401~405 **LN05263P** LEVEL IND
IC401 **RVIBA6154** LED DRIVE
D406 **LN222RP** STEREO IND
D407 **LN222RP** POWER BATT IND
D408 **LN222RP** TPS IND
D409 **LN322GP** DUBBING IND
D410 **LN222RP** REC IND

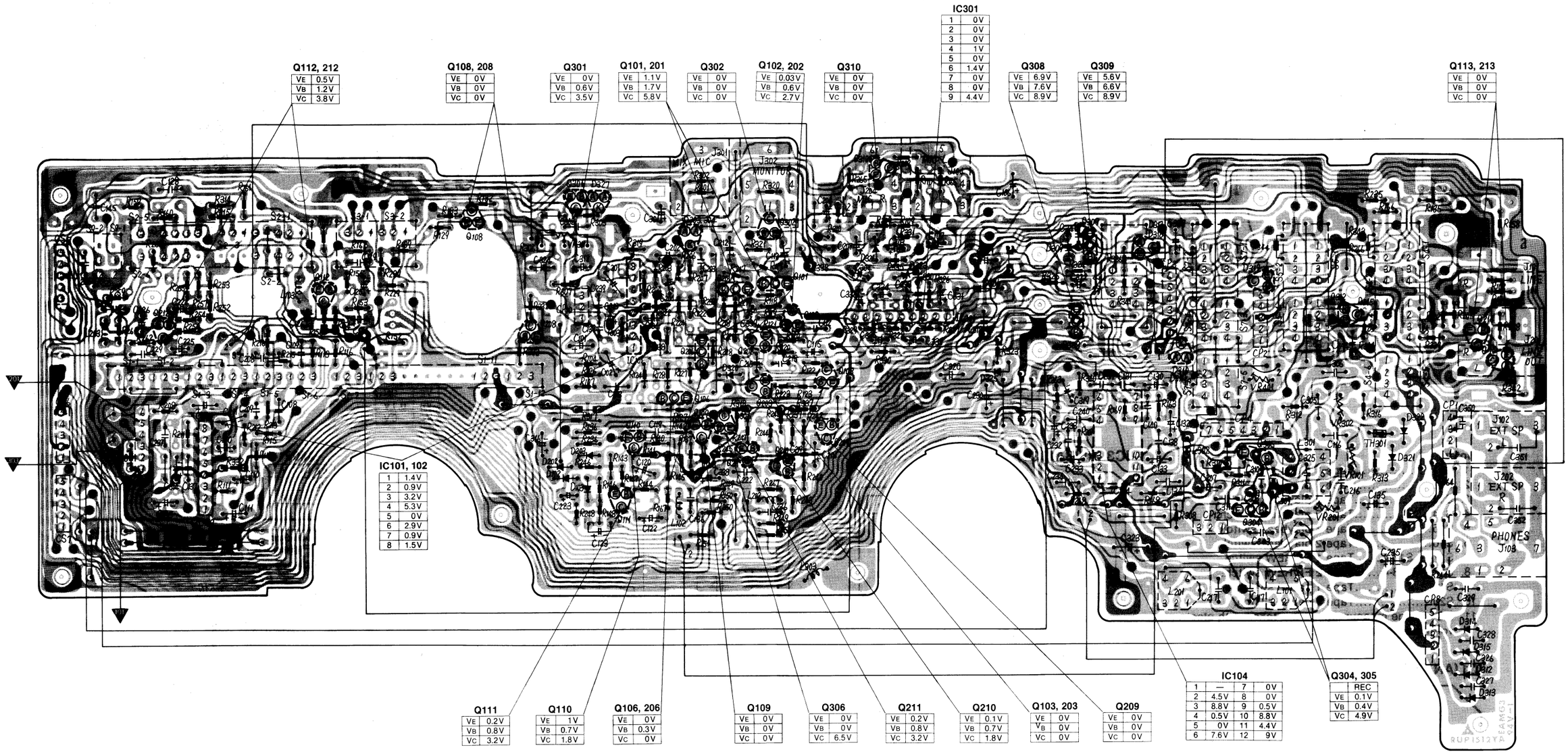
IC301 **RVIBA338** TPS AMP
D323 **MA151K** SWITCHING
D306 **MA150** SWITCHING
IC104 **RVILA4183** POWER AMP
D325 **MA1075** REGULATOR
Q308 **2SC2001** REGULATOR
Q309 **2SC1568** REGULATOR
(WOOFER)
10cm (4") PM DYNAMIC SPEAKER (3Ω)
(TWEETER)
2cm (9/16") CERAMIC SPEAKER (2KΩ)
D309 **MA1068** REGULATOR

420mV (5~6kΩ) L R J201 LINE OUT

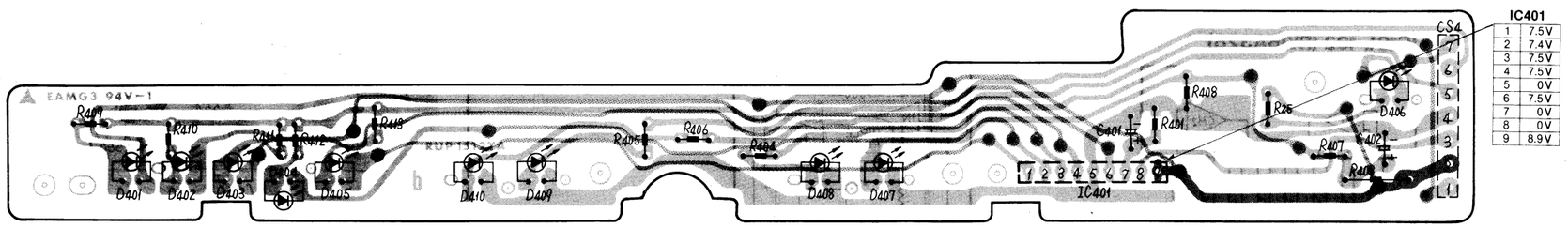
Q310 **2SB709** SWITCHING
D326 **MA150** SWITCHING
IC101, 102 **RVIBA328** EQ AMP
D327 **MA151K** SWITCHING
D303, 304 **MA151WK** SWITCHING
Q101, 102, 201, 202 **2SC1788** MONITOR AMP
Q103, 203 **2SD601** SWITCHING
Q106, 206 **2SC2001** SWITCHING
Q108, 208 **2SD596** SWITCHING
Q304, 305 **2SC1317** BIAS OSC
Q109, 209, 306 **2SD601** AGC
Q110, 111, 210, 211 **2SD601** AF AMP
D102, 103, 202, 203 **MA150** AGC
D321, 322 **RVDKB262D** AOC
Q112, 212 **2SD601** REC AMP
Q113, 213 **2SD601** LINE AMP
Q312 **2SD601** MUTING
D310, 311, 317, 318 **MA151WK** SWITCHING
D319 **MA151K** SWITCHING
D312~315 **RVDI0E1** RECT

CIRCUIT BOARD MODEL RX-D30/©

■ AUDIO CIRCUIT BOARD



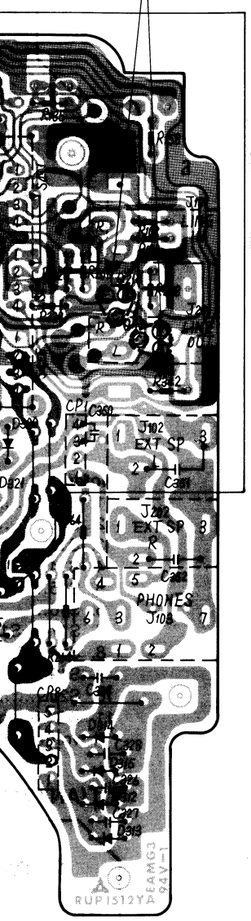
■ LED METER CIRCUIT BOARD



■ RADIO CIRCUIT BOARD

Q113, 213

VE	0V
VB	0V
VC	0V

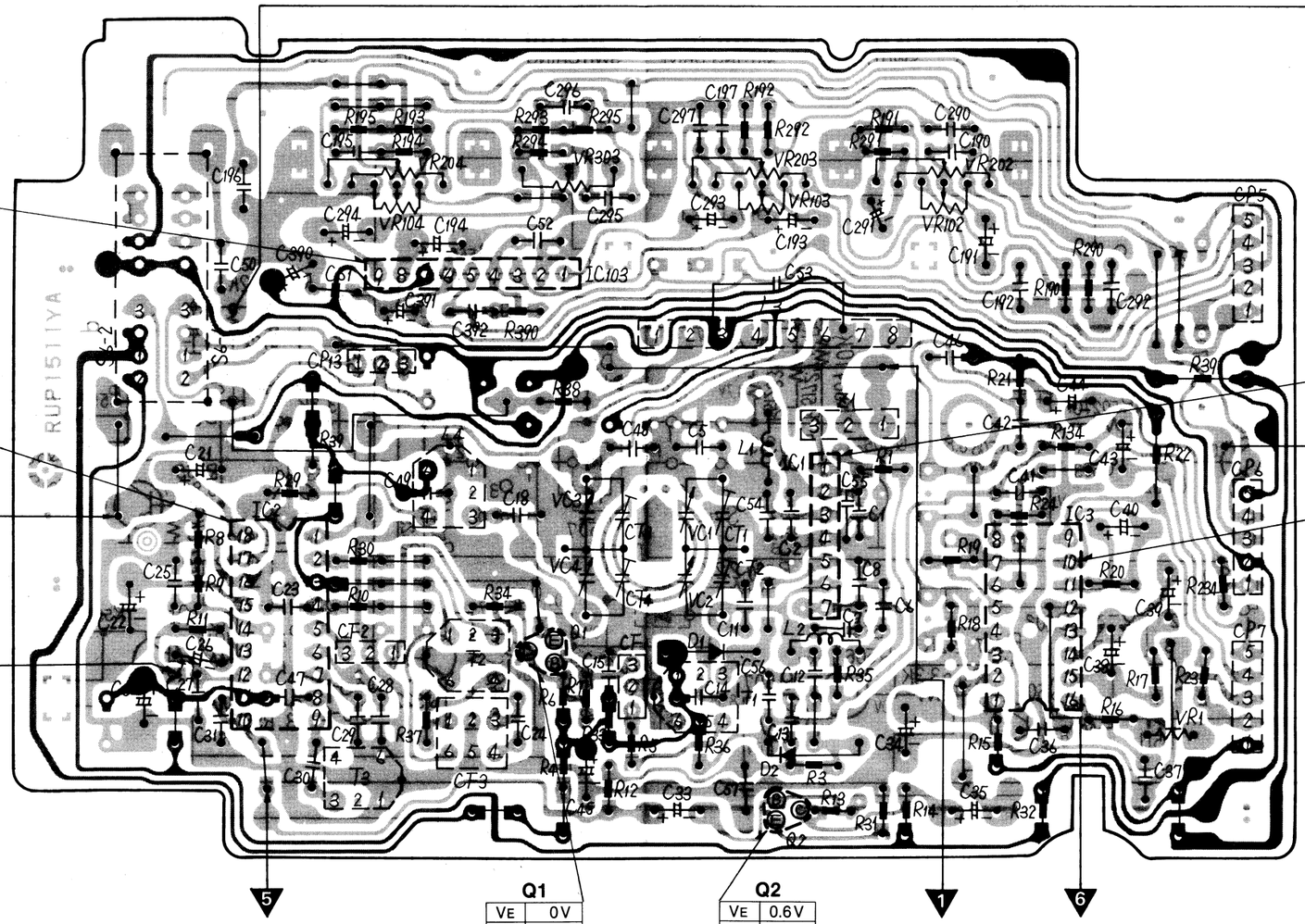


IC103

1	2.1V
2	0V
3	2.1V
4	4.8V
5	1.5V
6	1.4V
7	6.5V
8	2.9V
9	3V

IC2

	FM	AM		FM	AM
1	0V	5.2V	10	4.3V	4.8V
2	0V	5.1V	11	5V	5.2V
3	0V	5.2V	12	4.3V	4.4V
4	4.5V	4.6V	13	3.9V	4.1V
5	4.5V	4.6V	14	0.3V	0.3V
6	4.5V	4.6V	15	0.3V	0.3V
7	4.5V	4.6V	16	0V	0V
8	0V	0V	17	0V	5.1V
9	4.5V	5.2V	18	0.5V	0.7V



IC1

	FM
1	3.5V
2	4.2V
3	4.2V
4	0V
5	4.6V
6	4.1V
7	3.6V

IC3

	FM	AM		FM	AM
1	6.4V	6.4V	9	0V	2.5V
2	1.8V	1.8V	10	1.4V	1.4V
3	2.3V	2.3V	11	1.4V	1.4V
4	3.1V	3.1V	12	1.1V	0.1V
5	3.3V	3.3V	13	1.4V	1.4V
6	0V	0V	14	1.4V	1.4V
7	0V	0V	15	1.4V	1.4V
8	0.3V	0.3V	16	2V	2.8V

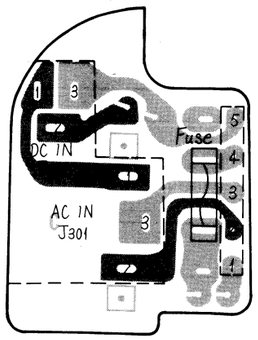
Q1

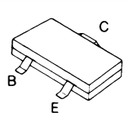
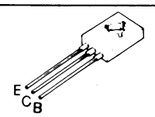
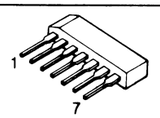
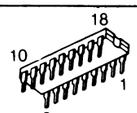
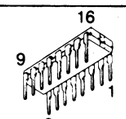
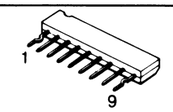
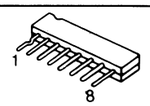
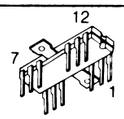
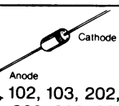
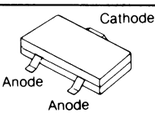
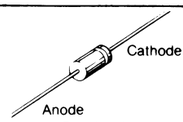
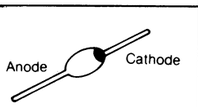
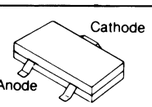
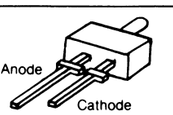
VE	0V
VB	0.7V
VC	3.8V

Q2

VE	0.6V
VB	1.2V
VC	3.8V

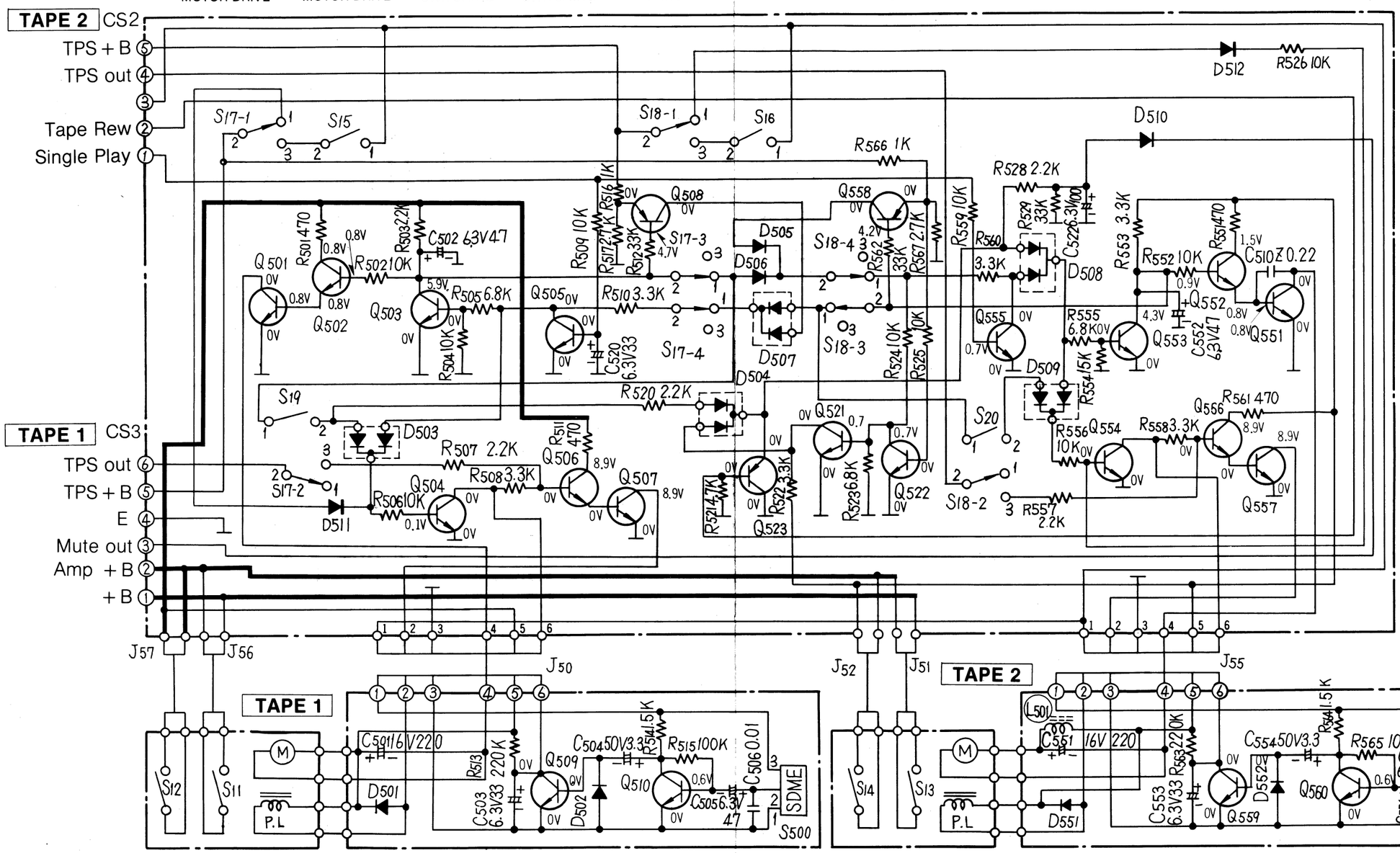
■ POWER SOURCE CIRCUIT BOARD



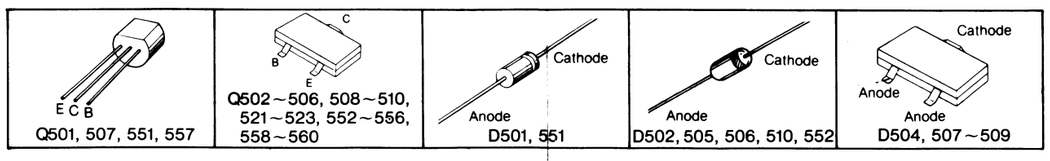
 Q1, 2, 102, 103, 108~113, 202, 203, 208~210, 212, 213, 221, 301, 302, 306, 310, 312		Q101, 106, 201, 206, 304, 305	 Q309	 IC1	 IC2	 IC3	 IC103, 301, 401
 IC101, 102	 6 IC104	 D1, 2, 102, 103, 202, 203, 306, 309, 320, 323, 325, 326	 D303, 310, 318	 D312~315	 D321, 322	 D319, 327	 D406~410

SCHEMATIC DIAGRAM MODEL RX-D30 (DECK CONTROL)

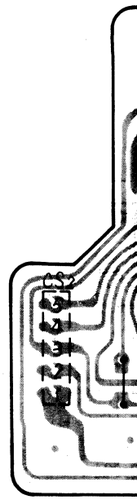
Q501, 551	Q502, 552	Q503～506 553～556	D503, 504	Q507, 557	Q508, 558	D505, 506, 510～512	D507～509
2SD592	**2SD601**	**2SD601**	**MA151WK**	**2SD592**	**2SB709**	**MA150TA**	**MA151WK**
MOTOR DRIVE	MOTOR DRIVE	SWITCHING	SWITCHING	MUTING DRIVE	SWITCHING	SWITCHING	SWITCHING



D501, 551	Q509, 510, 559, 560	D502, 552	Q523	Q521, 522
RVD10E1	**2SD601**	**MA150TA**	**2SB709**	**2SD601**
PROTECTOR	SWITCHING	SWITCHING	SWITCHING	SWITCHING



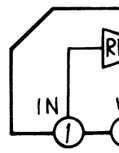
■ DECK CO



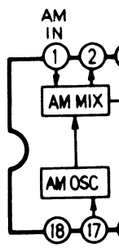
Notes:

1. S11.....
2. S12.....
3. S13.....
4. S14.....
5. S15.....
6. S16.....
7. S17-1～S
8. S18-1～S
9. S19.....
10. S20.....
11. DC volta voltmete

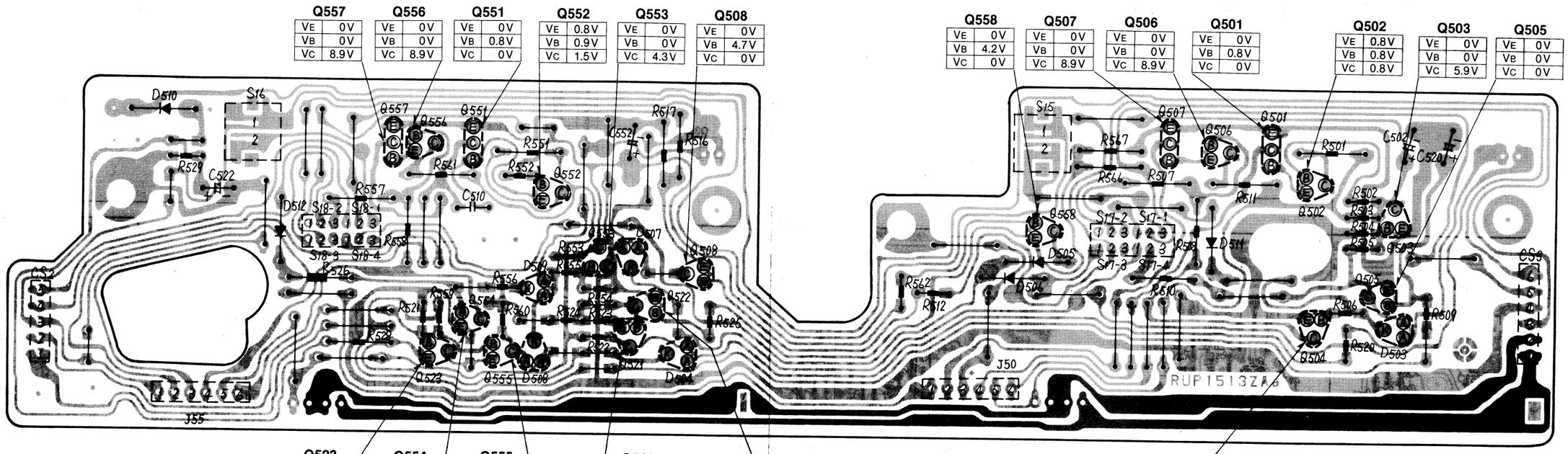
IC1 (AN721



IC2 (AN72



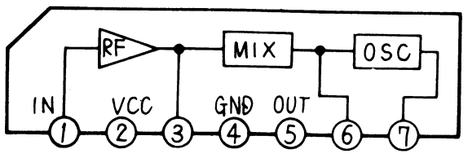
■ DECK CONTROL CIRCUIT BOARD


Q557 VE 0V VB 0V VC 8.9V
Q556 VE 0V VB 0V VC 8.9V
Q551 VE 0V VB 0.8V VC 0V
Q552 VE 0.8V VB 0.9V VC 1.5V
Q553 VE 0V VB 0V VC 4.3V
Q508 VE 0V VB 4.7V VC 0V
Q558 VE 0V VB 4.2V VC 0V
Q507 VE 0V VB 0V VC 8.9V
Q506 VE 0V VB 0V VC 8.9V
Q501 VE 0V VB 0.8V VC 0V
Q502 VE 0.8V VB 0.8V VC 0.8V
Q503 VE 0V VB 0V VC 5.9V
Q505 VE 0V VB 0V VC 0V
Q523 VE 0V VB 0V VC 0V
Q554 VE 0V VB 0V VC —
Q555 VE 0V VB 0.7V VC 0V
Q521 VE 0V VB 0.7V VC 0V
Q522 VE 0V VB 0V VC 0.7V
Q504 VE 0V VB 0.1V VC 0V
J55
J50
RUP1513ZA

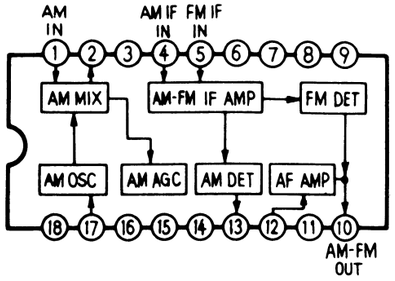
Notes:

1. S11.....Tape 1 playback switch.
2. S12.....Tape 1 playback switch.
3. S13.....Tape 2 playback switch.
4. S14.....Tape 2 playback switch.
5. S15.....Tape 1 playback switch.
6. S16.....Tape 2 playback switch.
7. S17-1~S17-4 .....Tape 1 FF/REW switch.
8. S18-1~S18-4 .....Tape 2 FF/REW switch.
9. S19.....Tape 1 pause switch.
10. S20.....Tape 2 pause switch.
11. DC voltage measurements are taken with electronics voltmeter based on negative terminal of battery.

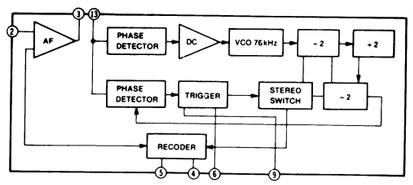
IC1 (AN7213)



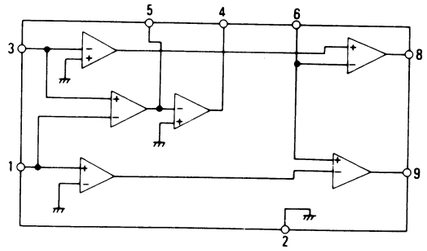
IC2 (AN7220A)



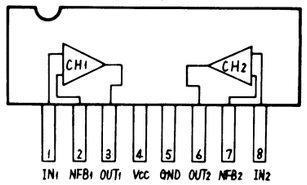
IC3 (RVIBA1330)



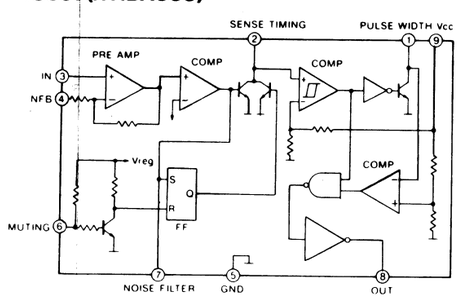
IC103 (RVIBA6133)



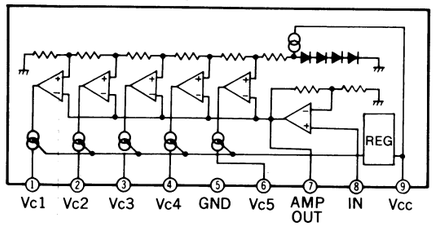
IC101, 102 (RVIBA328)



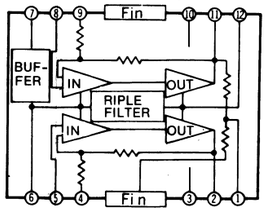
IC301 (RVIBA338)



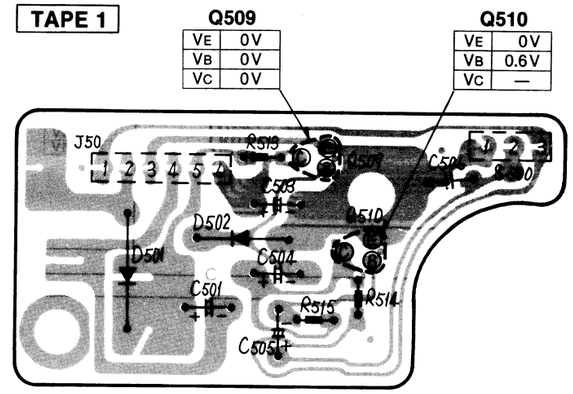
IC401 (RVIBA6154)



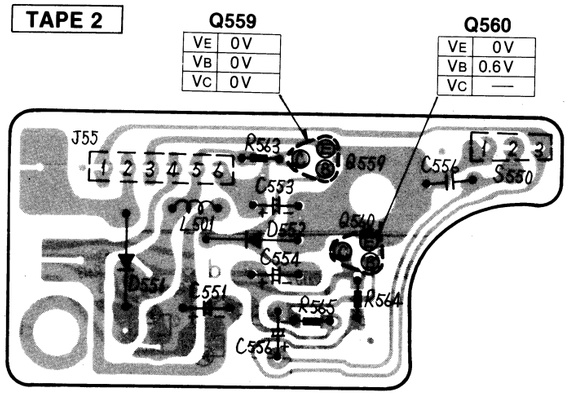
IC104 (RVILA4183)



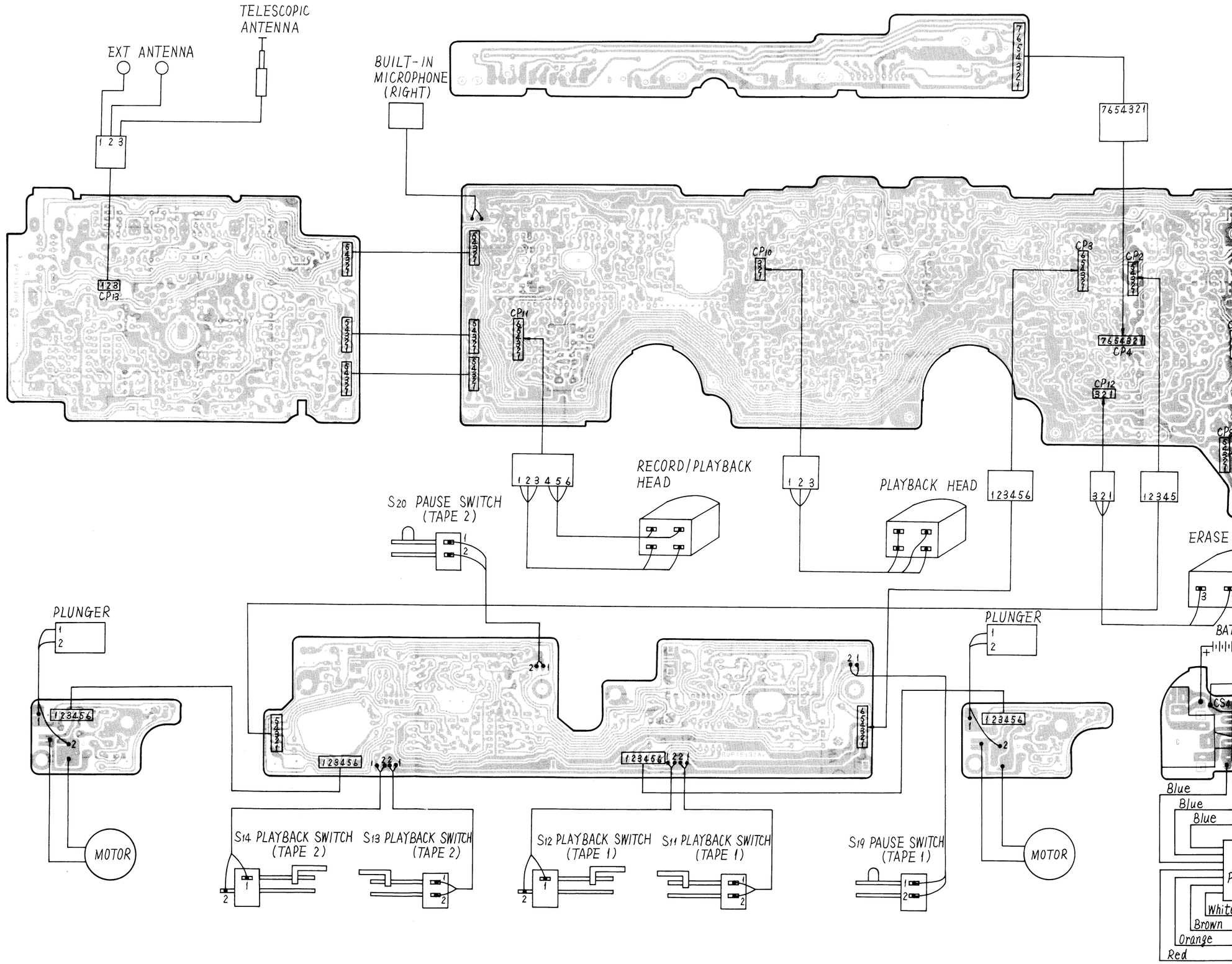
TAPE 1



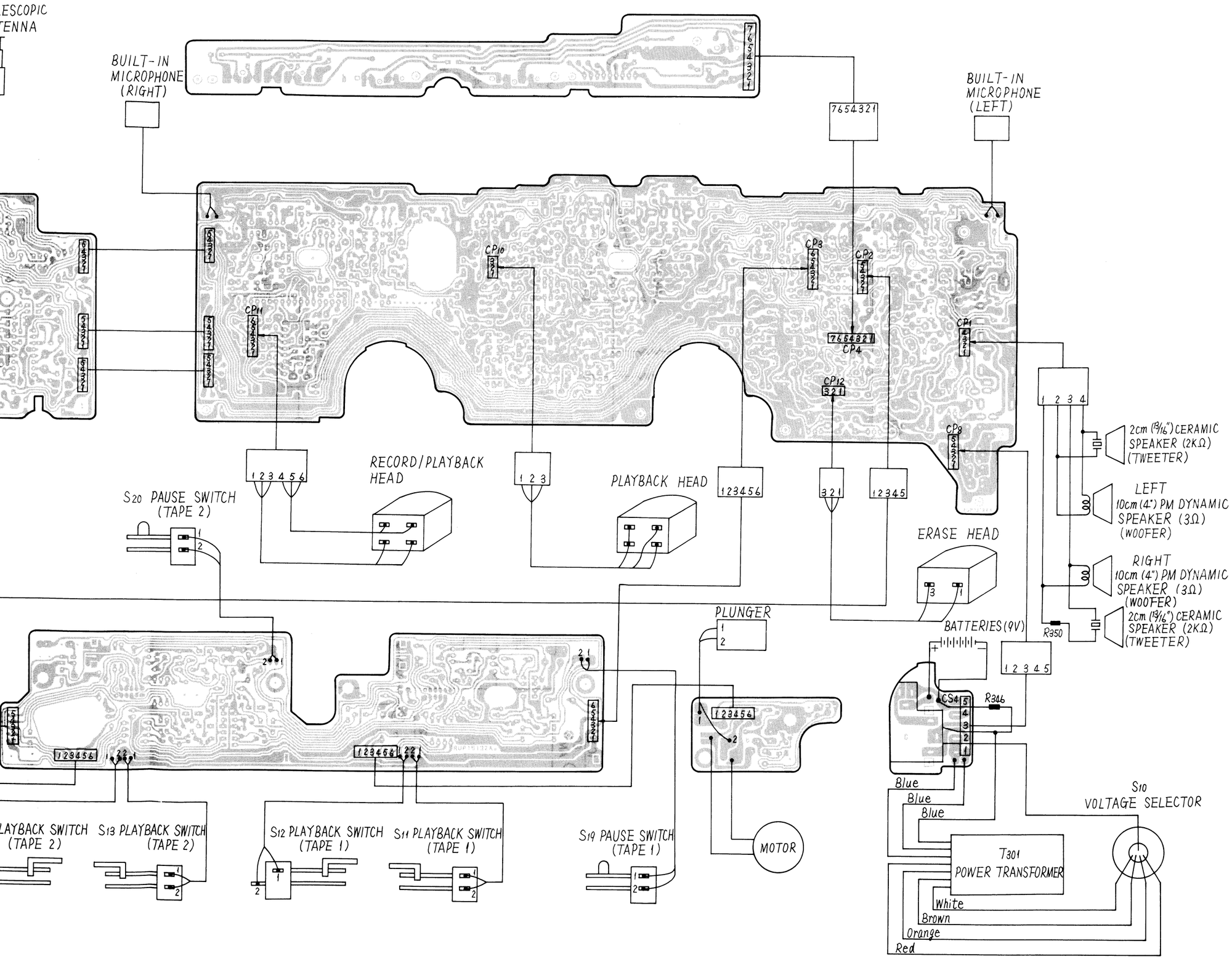
TAPE 2



WIRING CONNECTION DIAGRAM MODEL RX-D30/©

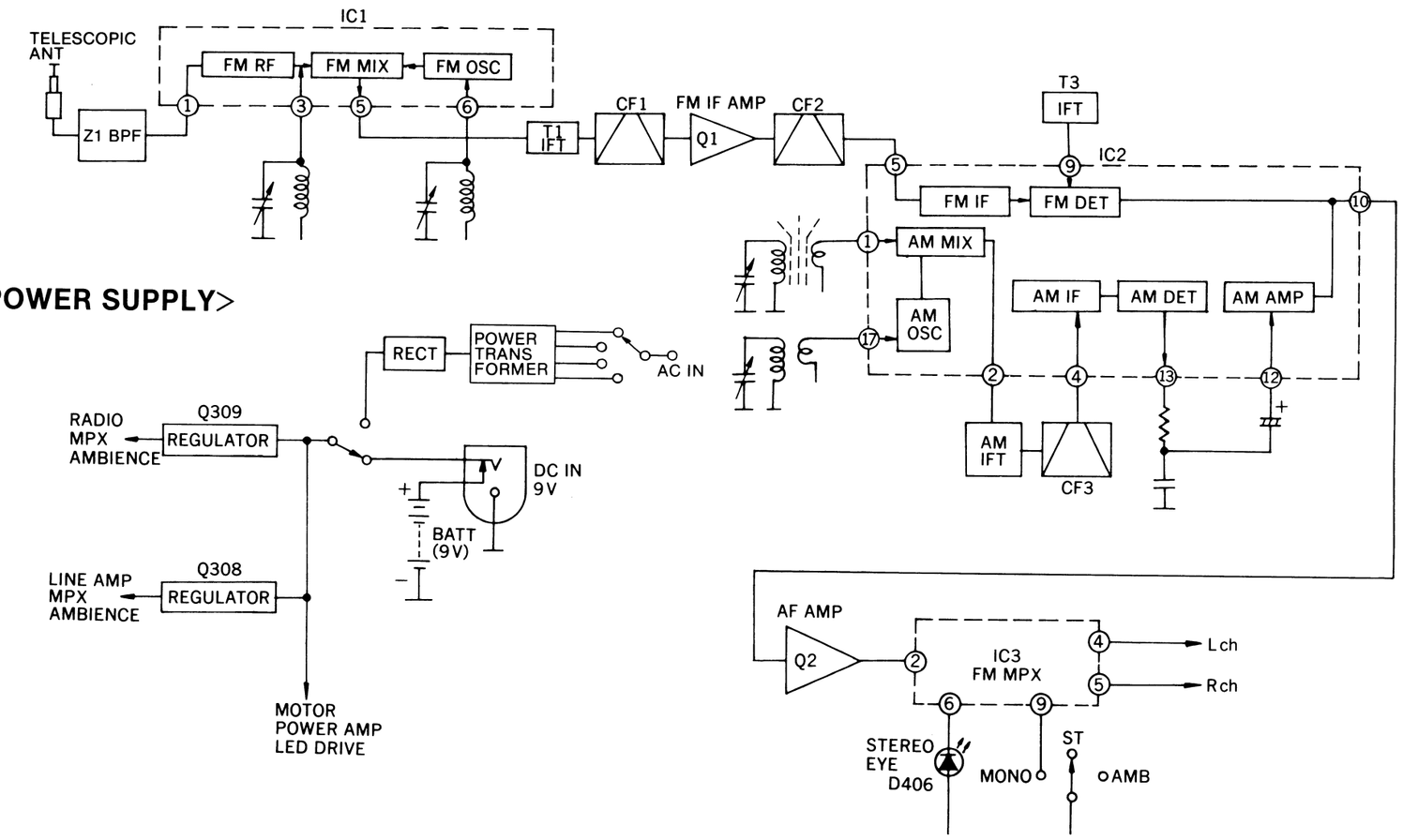


WIRING CONNECTION DIAGRAM MODEL RX-D30/©



BLOCK DIAGRAM

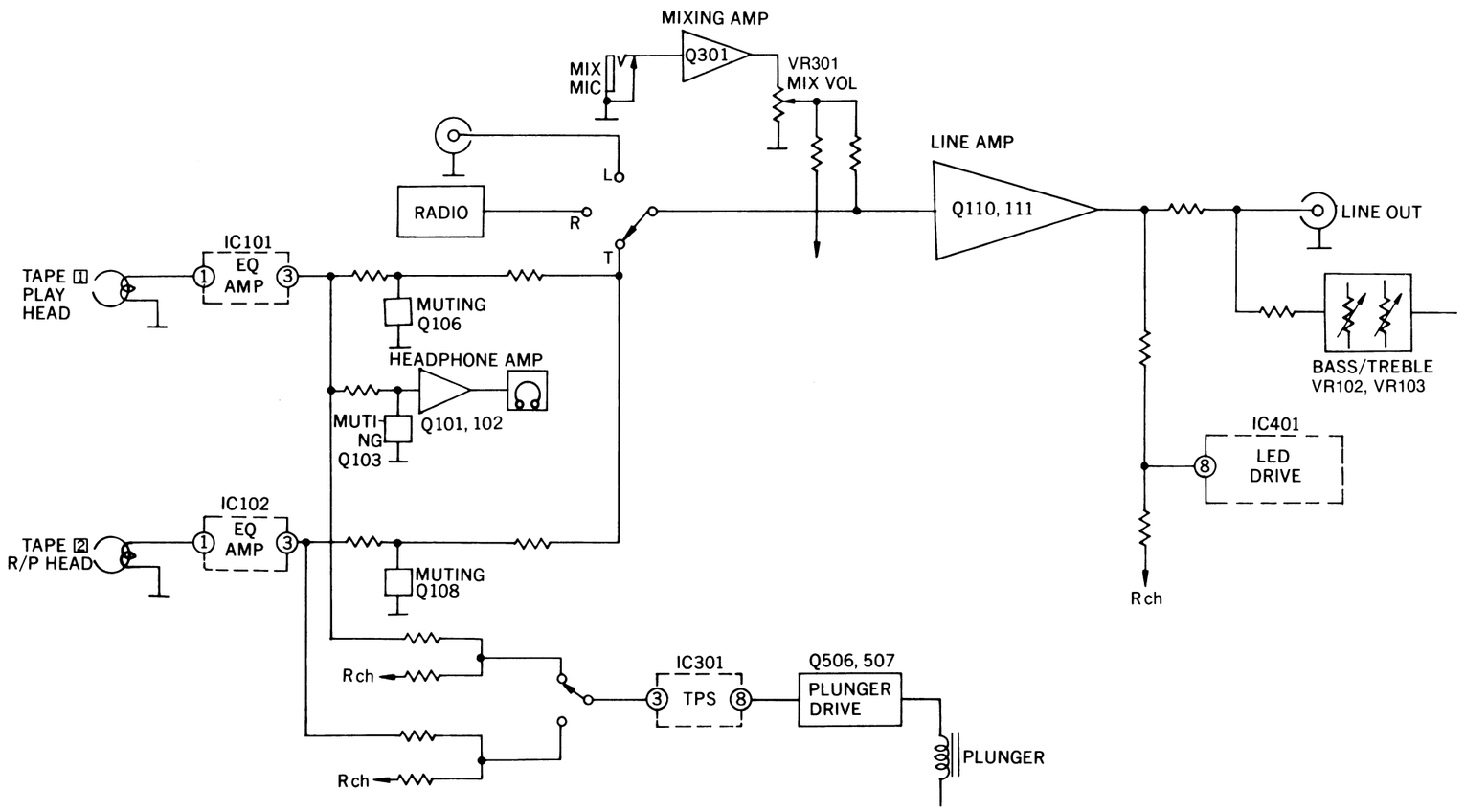
<RADIO>



<POWER SUPPLY>

[Fig. 15]

<PLAYBACK>



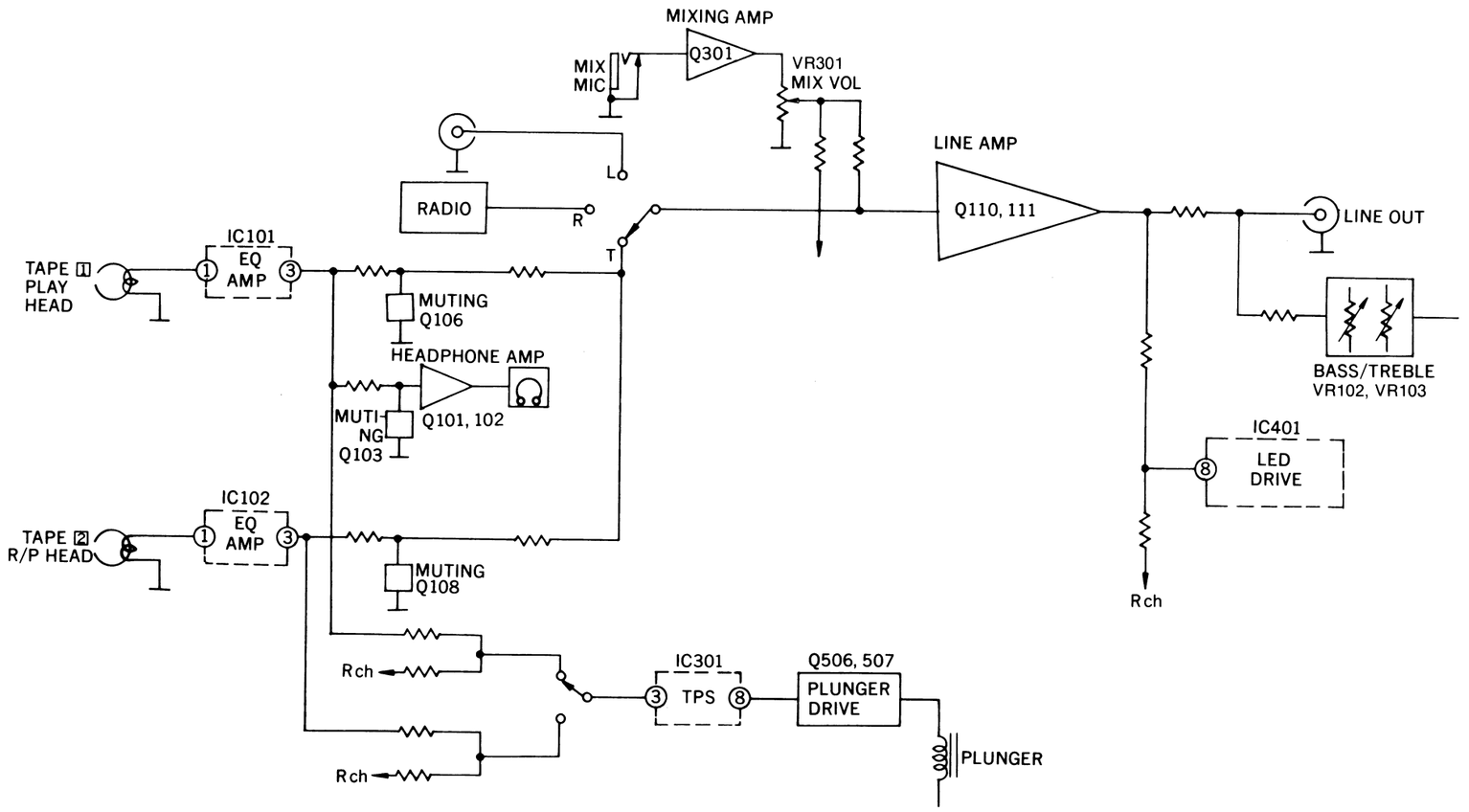
[Fig. 16]

<RECORD>

RX-D30/©

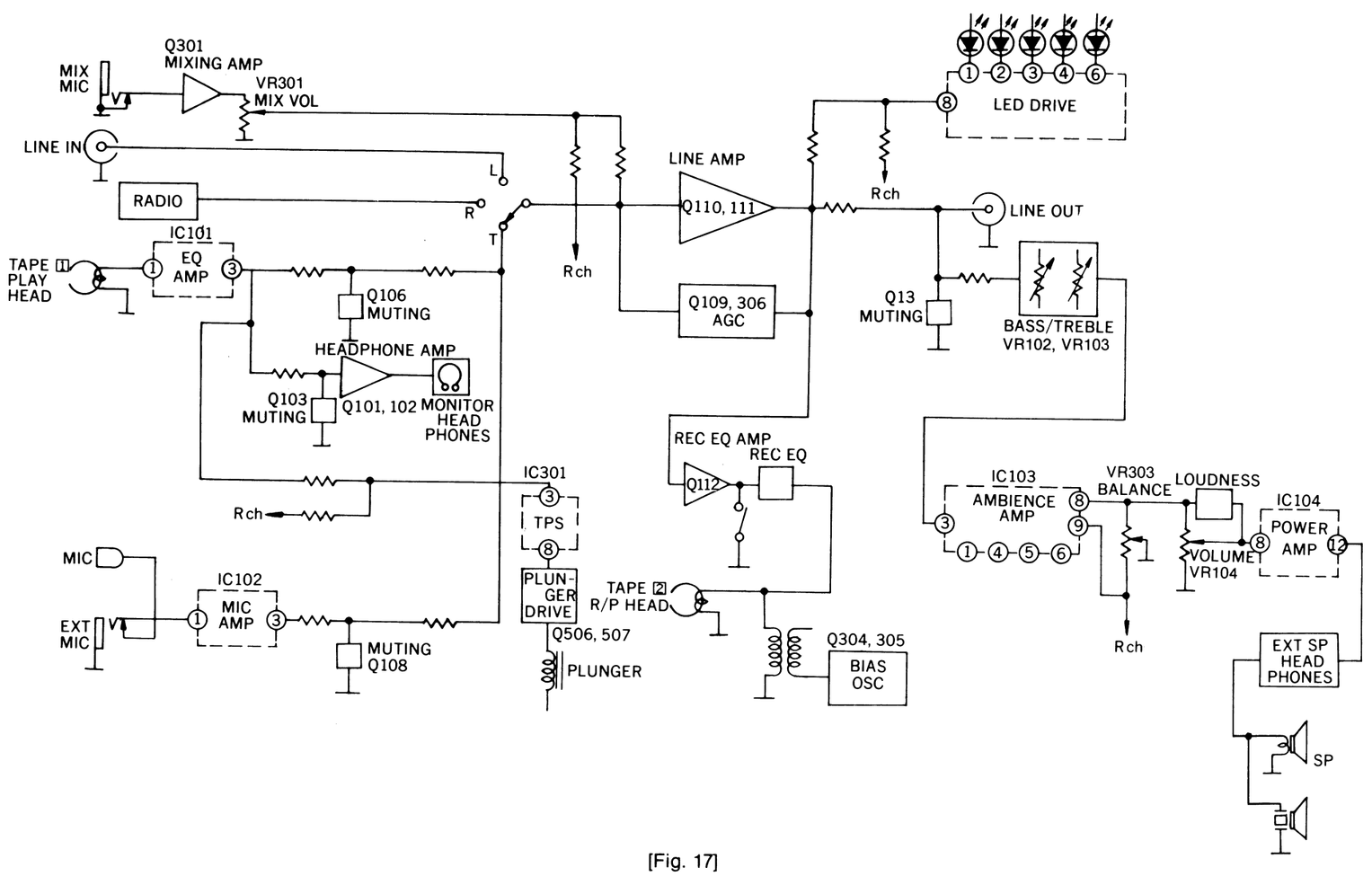
[Fig. 15]

<PLAYBACK>



[Fig. 16]

<RECORD>

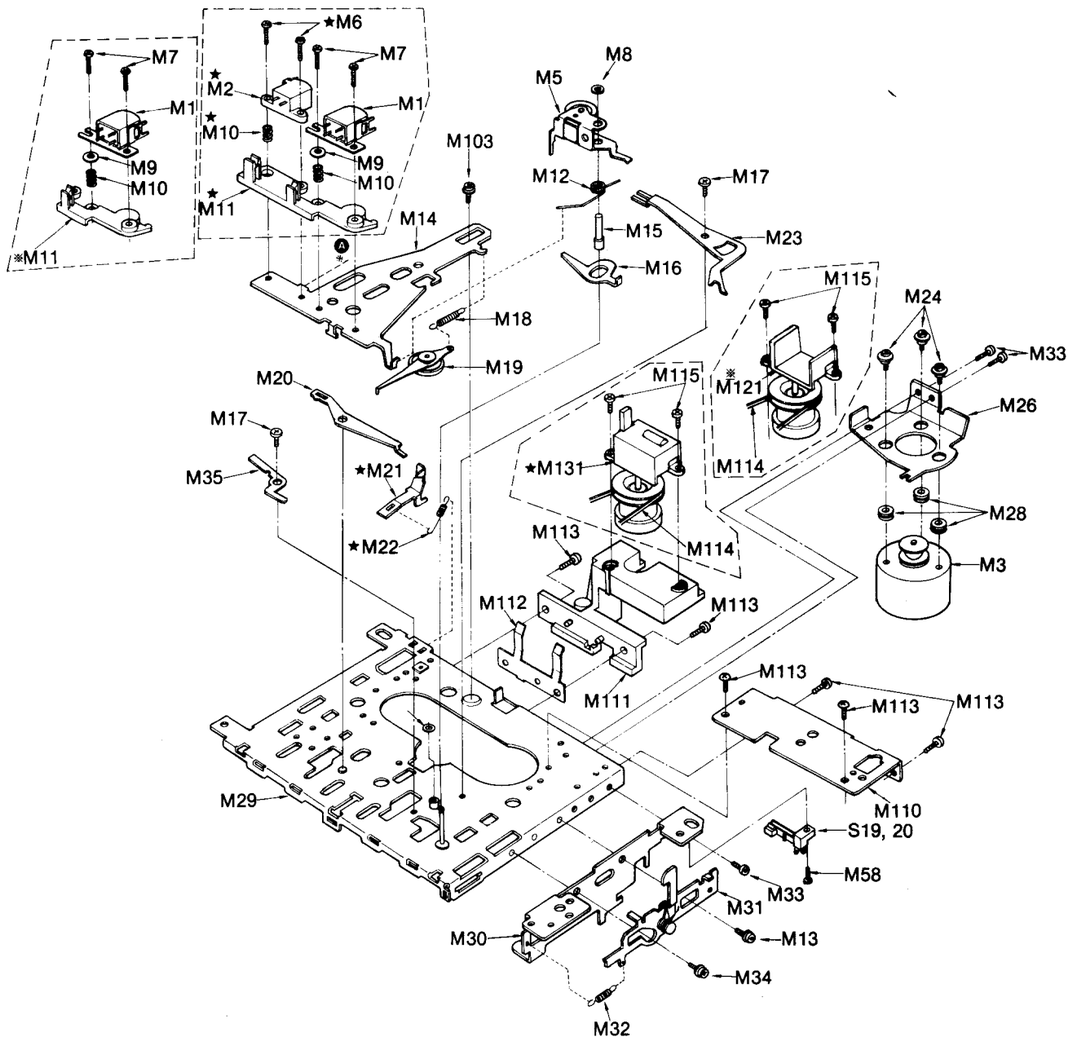


[Fig. 17]

RX-D30/©

MECHANISM PARTS LOCATION

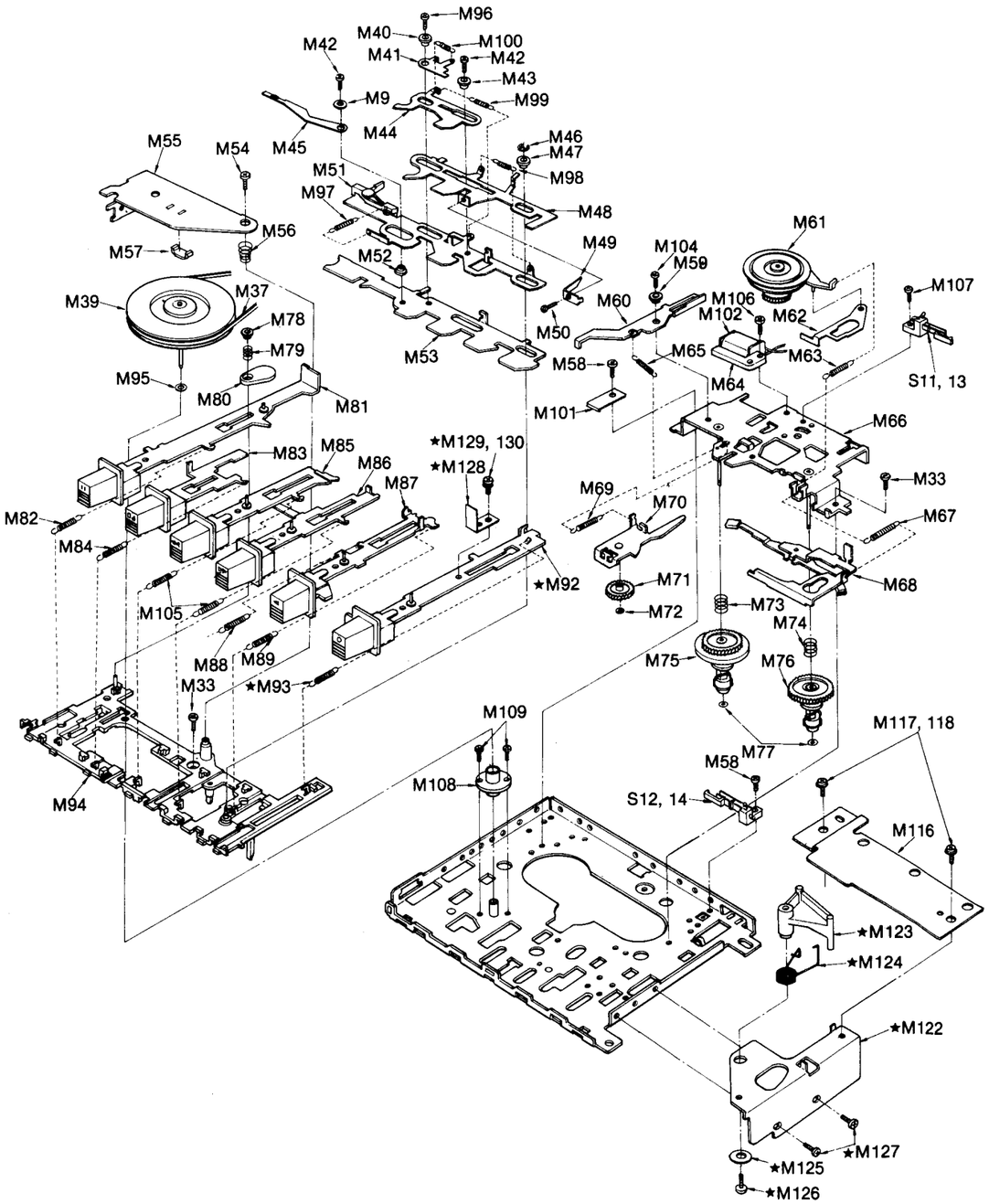
※ Mark ...Tape 1 only
★ Mark ...Tape 2 only
No mark ...Both tape 1 & 2.



[Fig. 18]

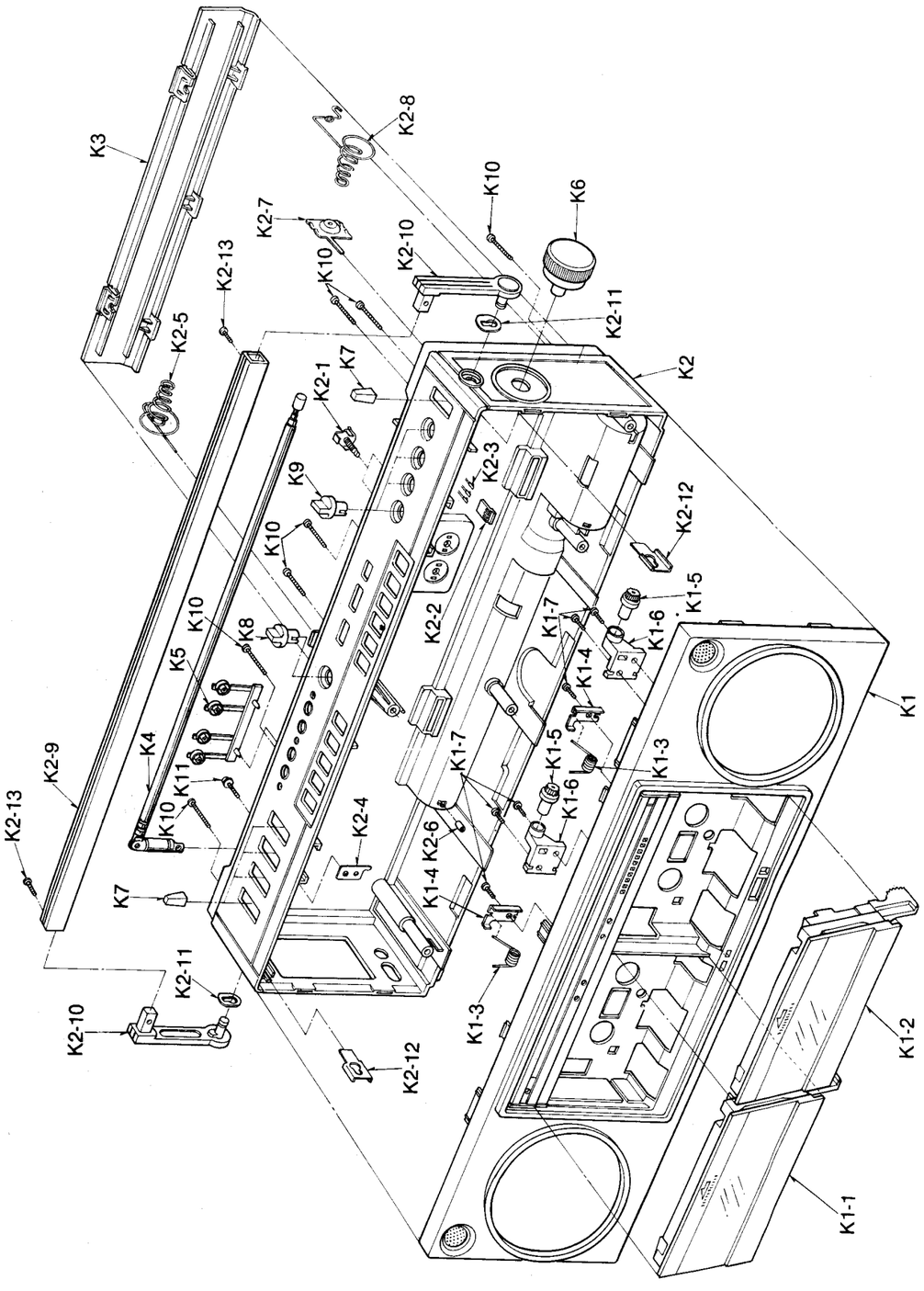
MECHANISM PARTS LOCATION

※ Mark ...Tape 1 only
★ Mark ...Tape 2 only
No mark ...Both tape 1 & 2.



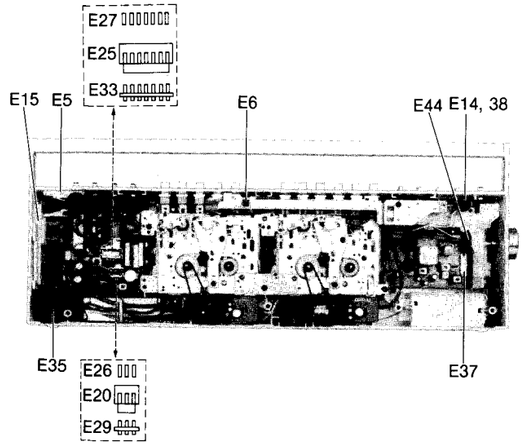
[Fig. 19]

CABINET PARTS LOCATION

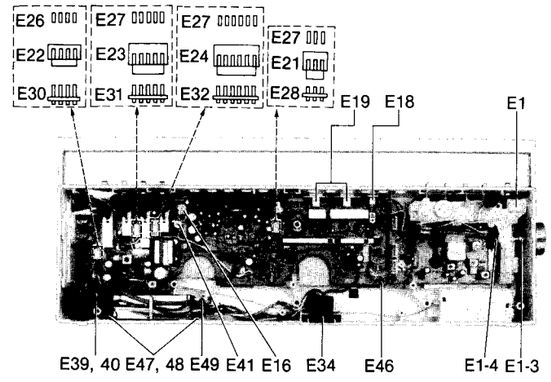


[Fig. 20]

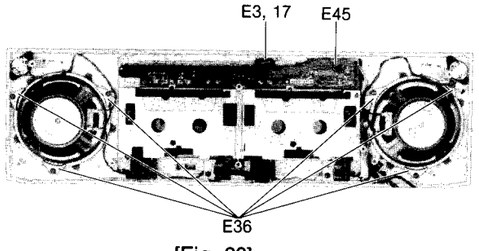
ELECTRICAL PARTS LOCATION



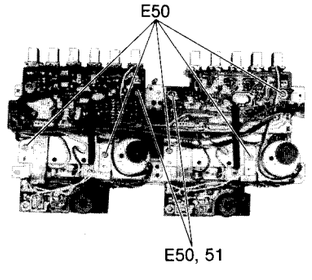
[Fig. 21]



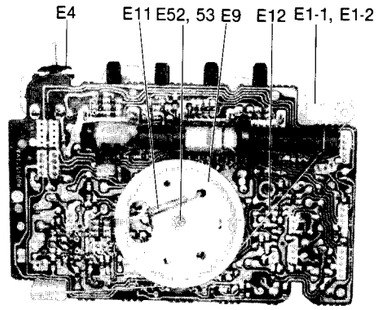
[Fig. 22]



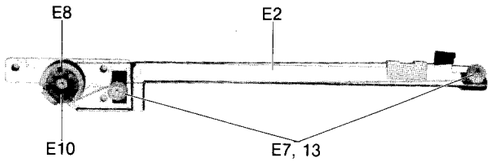
[Fig. 23]



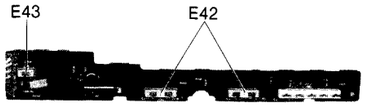
[Fig. 24]



[Fig. 25]

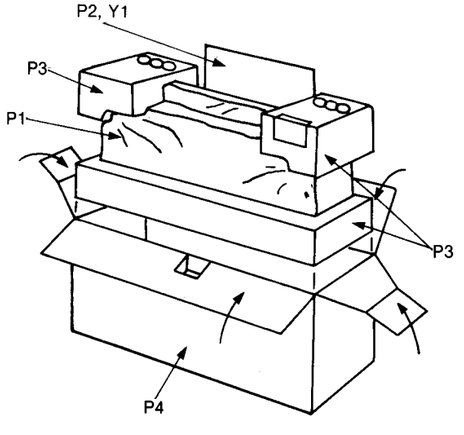


[Fig. 26]



[Fig. 27]

PACKING MATERIALS



[Fig. 28]

■REPLACEMENT PARTS LIST .....Model RX-D30/©

(RD81125235C1)

NOTES: 1.Important safety notice.
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
2.The S mark indicates service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		MECHANICAL PARTS		
	Tape 1 Only			
M11	SMQ4300	Head Base	1	
M121	RSE85Z	Pulley	1	
	TAPE 2 Only			
M2	RJH7E3Z	Erase Head	1	
M6	XSN2+8	Screw, Erase Head M'tg	2	S
M11	RFE48Z	Head Base	1	
M21	RFY122Z	Rec Safety Lever	1	
M22	RFS181Z	Spring, Rec Safety Lever	1	
M92	RYT1XD30N	Rec Button Lever Ass'y	1	
M93	RFS182Z	Spring, Rec Button	1	
M122	RMD1116Z	Bracket	1	
M123	RUB252Z	Lever	1	
M124	RDS5033Z	Spring	1	
M125	XWG3	Washer	1	S
M126	XTV3+8G	Screw	1	
M127	XTN26+5F	Screw	1	
M128	RUS451Z	Spring	2	
M129	XSN2+4	Screw	1	S
M130	XWA2B	Washer	1	S
M131	RSE86Z	Counter W/Pulley	1	
	Same Parts Both Tape 1 and Tape 2			
M1	RJH2E8Z	Record/Playback Head	2	
M3	HCI5S9LF	Motor Ass'y	2	
M5	RFR7Z	Pinch Roller Ass'y	2	
M7	XSN2+7	Screw, Head M'tg	4	
M8	RFN51Z	Washer, Pinch Roller	2	
M9	RFN52Z	Washer, Head etc.	4	
M10	RFS166Z	Spring Head	2	
M12	RFS168Z	Spring, Pinch Roller	2	
M13	SMQ3950	Screw, Eject Lever M'tg	1	
M14	RFD111Z	Head Panel	2	
M15	RFE39Z	Sleeve, Pinch Roller Arm	2	
M16	SMQ4384	Arm Lever	2	
M17	SMQ3984	Screw, Arm Lever M'tg	4	
M18	RFS167Z	Spring, Take Up Roller	2	
M19	RFI12Z	Take Up Roller Ass'y	2	
M20	SMQ4382	RC Kick Lever	2	
M23	SMQ3982	Arm Lever	2	
M24	RFE41Z	Screw, Motor M'tg	6	
M25	RFN3Z	Washer, Flywheel	2	
M26	RFD114Z	Bracket, Motor	2	
M28	RFI13Z	Rubber, Motor	6	
M29	RFU11Z	Chassis Ass'y	2	
M30	RFD115Z	Eject Bracket	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
M31	RFY117Z	Eject Lever Ass'y	2	
M32	RFS179Z	Spring, Eject Lever	2	
M33	XTN26+4F	Screw, Reel Table etc. M'tg	10	
M34	SMQ3952	Screw, Eject Lever Ass'y	2	
M35	SMQ4386	Center Lever	2	
M37	RFB16Z	Belt	2	
M39	SMQ4350	Flywheel Capstan	2	
M40	RFX46Z	Operation Plate	2	
M41	RFY114Z	FR Kick Lever	2	
M42	RFE46Z	Screw, Kick Lever etc. M'tg	4	
M43	RFX47Z	Operation Plate Washer	2	
M44	RFY113Z	FR Lever	2	
M45	RFY115Z	Kick Lever	2	
M46	XUC12FT	Circlip, SW Operation Plate	2	S
M47	SMQ4378	Washer, Operation Plate Shaft	2	
M48	RFY112Z	Operation Plate, Switch	2	
M49	RFS183Z	Spring, Switch	2	
M50	RFE47Z	Screw, Switch Spring etc. M'tg	2	
M51	RFY111Z	FR Operation Plate Ass'y	2	
M52	RFX49Z	Washer, E Kick Lever	2	
M53	RFY110Z	Operation Plate, Button	2	
M54	XTS26+14G	Screw, Flywheel M'tg	2	
M55	RFD112Z	Bracket, Flywheel	2	
M56	SMQ3932	Spring	2	
M57	RFD83Z	Bracket, Flywheel	2	
M58	XTN26+5H	Screw, Pause Switching	6	
M59	SMQ4394	Washer, Auto Kick Lever	2	
M60	RFY116Z	Auto Kick Lever	2	
M61	RFQ15Z	RF Crutch Ass'y	2	
M62	SMQ4270	Spring, RWD	2	
M63	SMQ4312	Spring, RF Crutch Arm	2	
M64	SMQ4390	Core	2	
M65	RFS180Z	Spring, Auto Kick Lever	2	
M66	RFE37Z	Reel Table	2	
M67	SMQ3922	Spring, Main Plate	2	
M68	RFY104Z	Main Plate Ass'y	2	
M69	SMQ3918	Spring, FF Gear Plate	2	
M70	RFK6Z	FF Idler Arm	2	
M71	RFG21Z	Center Gear	2	
M72	RFN49Z	Washer, Center Gear	2	
M73	SMQ3908	Spring, Back Tension	2	
M74	RFS72Y	Spring, Back Tension	2	
M75	SMQ3906	Take Up Reel Ass'y	2	
M76	SMQ3910	Supply Reel Table Ass'y	2	
M77	SMQ3914	Slider Reel Washer Ass'y	4	
M78	SMQ3978	Stopper, Pause Lever	2	
M79	SMQ3976	Spring, Pause Lever	2	
M80	RFY40Z	Pause Lever	2	
M81	RYT2XD30N	Pause Button Lever	2	
M82	SMQ3974	Spring, Pause Button Lever	2	
M83	RYT3XD30N	Stop Button Lever Ass'y	2	
M84	SMQ3968	Spring, Button Lever	2	
M85	RYT4XD30N	FF Button Lever Ass'y	2	
M86	RYT5XD30N	REW Button Lever Ass'y	2	
M87	RYT6XD30N	Play Button Lever Ass'y	2	
M88	SMQ3896	Spring, RC	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
M89	SMQ3962	Spring, Play Button Lever	2	
M94	RFD113Z	Button Base Ass'y	2	
M95	SMQ3934	Washer Flywheel	2	
M96	RFE45Z	Screw, FR Kick Lever Ass'y	2	
M97	SMQ4380	FR Operation Spring	2	
M98	RFS185Z	Operation Spring, Switch	2	
M99	RFS186Z	FR Lever Spring	2	
M100	RFS187Z	Kick Lever Spring	2	
M101	RFD116Z	Bracket	2	
M102	RFP8Z	Coil Ass'y	2	
M103	RFE50Z	Screw, Head Panel M'tg	1	
M104	XTN2+4B	Screw, Switch M'tg	2	S
M105	SMQ4374	Spring, FR Button Lever	4	
M106	XTN26+5F	Screw, Core M'tg	2	
M107	XTN2+5F	Screw, Amp Switch M'tg	2	
M108	RFV3Z	Flywheel Block	2	
M109	XTS2+4B	Screw, Flywheel Block M'tg	2	S
M110	RMD1115Z	Bracket		
M111	RME284Z	Counter Table	2	
M112	RUS447Z	Spring	2	
M113	XTV26+6F	Screw	9	
M114	RDV12Z	Belt	2	
M115	XTN23+8C	Screw	4	
M116	RMC802Z	Shield Cover	2	
M117	XSN3+6S	Screw	4	S
M118	XWG3	Washer	4	S
		INTEGRATED CIRCUITS, TRANSISTORS AND DIODES		
IC1	AN7213	IC	1	
IC2	AN7220A	IC	1	
IC3	RVIBA1330	IC	1	
IC101,102	RVIBA328	IC	2	
IC103	RVIBA6133	IC	1	
IC104	RVILA4183	IC	1	
IC301	RVIBA338	IC	1	
IC401	RVIBA6154	IC	1	
Q1	2SC1009F4	Transistor (Si)	1	
Q2,111,112, 211,212,302	2SD601Q	Transistor (Si)	6	
Q101,201	2SC1788RDR2	Transistor (Si)	2	
Q102,202,306,502∿506, 509,510,521,522 552∿556,559,560	2SD601R	Transistor (Si)	19	
Q103,109,113,203, 209,213,301,312	2SD601S	Transistor (Si)	8	
Q106,206,308	2SC2001L1	Transistor (Si)	3	
Q108,208	2SD596DV3	Transistor (Si)	2	
Q110,210	2SC1622AD16	Transistor (Si)	2	
Q304,305	2SC1317NCR	Transistor (Si)	2	
Q309	2SC1568R	Transistor (Si)	1	
Q310	2SB709Q	Transistor (Ge)	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
Q501,507,551,557	2SD592NCR	Transistor (Si)	4	
Q508,523,558	2SB709S	Transistor (Ge)	3	
D1,102,103,202, 203,306,320,323, 326,502,505,506, 510∿512,552	MA161	Diode (Si)	16	S
D2	RVDSD113	Diode (Si)	1	S
D303,310,318,503, 504,507∿509	MA151WK	Diode (Si)	8	
D309	RVDRD6R8EB	Diode (Si)	1	S
D312∿315	SM112	Diode (Si) For USA	4	S
D312∿315	RVDSM1502	Diode (Si) For Canada	4	
D501,551	SM112	Diode (Si)	2	S
D319,327	MA151K	Diode (Si)	2	
D321,322	RVDKB262D	Diode (Si)	2	S
D325	RVDRD7R5FB	Diode (Si)	1	S
D401	LN05263P	LED (Ga)	1	
D406∿408,410	LN222RP	LED (Ga)	4	
D409	LN322GP	LED (Ga)	1	
S500,550	RVSDM101A	Hall Element	2	
		THERMISTOR		
Th301	RRT302	Thermistor	1	
		COILS AND TRANSFORMERS		
L1	RLD4Y44	Coil, FM Tuning	1	
L2	RLD4Y43	Coil, FM Oscillator	1	
L3	RLF2W44	Coil, AM Antenna	1	
L4	RLO2M18	Coil, AM Oscillator	1	
L101,201	QLQM1531	Coil, Bias Trap	2	
L102,103,202,203	RLQZ8221	Coil, Chock	4	
L301	RLO9C28	Coil, Bias Oscillator	1	
L302	RLQZB150K	Coil, Chock	1	
L501	RLQZB4R7K	Coil, Chock	1	
T1,3	RLI4M101	IFT, FM	2	S
T2	QLI2M102M	IFT, AM	1	S
T301	RLT5Z3C1A	Power Transformer	1	⚠
		VARIABLE RESISTORS		
VR1	EVNM4AA00B14	Variable Resistor, Pre-Set 10kΩ (B)	1	S
VR101,201	EVNA6AA00B54	Variable Resistor, Pre-Set 50kΩ (B)	2	S
VR102,103,202,203	EWCSUAF15A54	Variable Resistor, 50kΩ (A)	2	
VR104,204	EWCSVAF15A54	Variable Resistor, 50kΩ (A)	1	
VR301	EWHG2AF15A14	Variable Resistor, 10kΩ (A)	1	
VR302	EVNA6AA00B53	Variable Resistor, 5kΩ (B)	1	
VR303	EWHGHAF15G54	Variable Resistor, 50kΩ (G)	1	
VR401	EVNA6AA00B14	Variable Resistor, Pre-Set 10kΩ (B)	1	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		VARIABLE CAPACITOR		
VC1∿4	RCV4LC2VK	Tuning Capacitor, w/Trimmer Capacitor (CT1∿4)	1	
		CERAMIC FILTERS		
CF1,2	RVFSFE107MAR	Ceramic Filter	2	
CF3	RVFSFZ455B	Ceramic Filter	1	
		COMPONENT COMBINATION		
Z1	RXABPWB5W	Component Combination	1	
		SPEAKERS		
	EAS10P210S	Speaker, 10cm (4"), 3Ω, Woofer	2	
	EAS2FP01AA	Speaker, 2cm (13/16"), 2kΩ, Tweeter	2	
		SWITCHES		
S1	RSH2L03Z	Switch, Record/Playback	1	
S2	RSS3F05Z	Switch, Tape Selector	1	
S3	RSS2B30Z	Switch, Tape Selector	1	
S4	RST3F16Z	Switch, Function Selector	1	
S5	RST3D17Z	Switch, Mode	1	
S6	RST2B31Z	Switch, Band	1	
S7	RST2F08Z	Switch, TPS/Dubbing	1	
S8	RST2B29Z	Switch, Tape Operation	1	
S9	RSH2B09W	Switch, Rec Mute	1	
S11,13	RFA23Z	Switch, Playback	2	
S12,14	RFA21Z	Switch, Playback	2	
S15,16	RSH1A25Z	Switch, Playback	2	
S17,18	RSS2D10Z	Switch, FF/REW	2	
S19,20	RFA22Z	Switch, Pause	2	
S21	RSR4A06Y	Switch, Voltage Selector	1	⚠
		JACKS		
J101,201	RJF1084Z	Jack, Line	1	
J102,202	RJJ87Y	Jack, EXT SP	2	
J103	RJJ1D11Z	Jack, Headphone	1	
J104,204,301	RJJ1D7Z	Jack, EXT Mic & Mixing Mic	3	
J302	RJJ1D10Z	Jack, Monitor Headphone	1	
J303,304	QJS0328	Jack, AC/DC	1	⚠
		RESISTORS (Value is in OHMS)		
R1	RRD18XK680	68 1/8W Chip	1	
R3	RRD18XK104	100 k " "	1	
R4	RRD18XK470	47 " "	1	
R5	RRD18XK331	330 " "	1	
R6	RRD18XK102	1 k " "	1	
R7	RRD18XK334	330 k " "	1	
R8	RRD18XK473	47 k " "	1	
R9	RRD18XK222	2.2 k " "	1	
R10	RRD18XK681	680 " "	1	
R11	RRD18XK392	3.9 k " "	1	
R12	RRD18XK474	470 k " "	1	
R13	RRD18XK474	470 k " "	1	
R14	RRD18XK122	1.2 k " "	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R15	RRD18XK220	22 1/8W Chip	1	
R16	RRD18XK153	15 k " "	1	
R17	RRD18XK102	1 k " "	1	
R18	RRD18XK392	3.9 k " "	1	
R19	RRD18XK392	3.9 k " "	1	
R20	RRD18XK104	100 k " "	1	
R21	RRD18XK223	22 k " "	1	
R22	ERD25TJ104	100 k 1/4W Carbon	1	S
R23	RRD18XK104	100 k 1/8W Chip	1	
R24	RRD18XK471	470 " "	1	
R25	RRD18XK152	1.5 k " "	1	
R29	RRD18XK330	33 " "	1	
R30	RRD18XK331	330 " "	1	
R31	RRD18XK561	560 " "	1	
R32	RRD18XK470	47 " "	1	
R33	RRD18XK101	100 " "	1	
R34	RRD18XK151	150 " "	1	
R35	RRD18XK102	1 k " "	1	
R36	RRD18XK101	100 " "	1	
R37	RRD18XK331	330 " "	1	
R38	RRD18XK681	680 " "	1	
R39	RRD18XK122	1.2 k " "	1	
R101	RRD18XK224	220 k " "	1	
R102	RRD18XK153	15 k " "	1	
R103	RRD18XK683	68 k " "	1	
R104	RRD18XK101	100 " "	1	
R106	RRD18XK392	3.9 k " "	1	
R107	RRD18XK682	6.8 k " "	1	
R108	RRD18XK100	10 " "	1	
R109	RRD18XK222	2.2 k " "	1	
R110	RRD18XK681	680 " "	1	
C111	RRD18XK683	68 k " "	1	
R112	RRD18XK101	100 " "	1	
R113	RRD18XK123	12 k " "	1	
R115	RRD18XK392	3.9 k " "	1	
C116	RRD18XK682	6.8 k " "	1	
R117	ERD25FJ680	68 1/4W Carbon	1	S
R118	RRD18XK123	12 k 1/8W Chip	1	
R119	RRD18XK182	1.8 k " "	1	
R120	RRD18XK680	68 " "	1	
R121	RRD18XK334	330 k " "	1	
R122	RRD18XK472	4.7 k " "	1	
R123	RRD18XK472	4.7 k " "	1	
R124	RRD18XK153	15 k " "	1	
R127	RRD18XK103	10 k " "	1	
R128	RRD18XK472	4.7 k " "	1	
R129	RRD18XK153	15 k " "	1	
R132	RRD18XK103	10 k " "	1	
R133	RRD18XK472	4.7 k " "	1	
R134	RRD18XK683	68 k " "	1	
R135	RRD18XK153	15 k " "	1	
R136	RRD18XK153	15 k " "	1	
R137	RRD18XK332	3.3 k " "	1	
R138	RRD18XK473	47 k " "	1	
R139	RRD18XK473	47 k " "	1	
R140	RRD18XK474	470 k " "	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R141	RRD18XK682	6.8 k 1/8W Chip	1	
R142	RRD18XK820	82 " "	1	
R143	RRD18XK104	100 k " "	1	
R144	RRD18XK184	180 k " "	1	
R145	RRD18XK102	1 k " "	1	
R146	RRD18XK334	330 k " "	1	
R147	RRD18XK470	47 " "	1	
R148	RRD18XK682	6.8 k " "	1	
R149	RRD18XK562	5.6 k " "	1	
R150	RRD18XK683	68 k " "	1	
R151	RRD18XK472	4.7 k " "	1	
R152	RRD18XK822	8.2 k " "	1	
R153	RRD18XK332	3.3 k " "	1	
R154	RRD18XK104	100 k " "	1	
R155	RRD18XK223	22 k " "	1	
R156	RRD18XK272	2.7 k " "	1	
R157	RRD18XK471	470 " "	1	
R158	RRD18XK472	4.7 k " "	1	
R159	RRD18XK681	680 " "	1	
R160	RRD18XK152	1.5 k " "	1	
R161	RRD18XK221	220 " "	1	
R162	RRD18XK103	10 k " "	1	
R163	RRD18XK560	56 " "	1	
R164	ERD25FJ101	100 1/4W Carbon	1	S
R165	RRD18XK472	4.7 k 1/8W Chip	1	
R166	RRD18XK104	100 k " "	1	
R167	RRD18XK102	1 k " "	1	
R168	ERD25FJ1R0	1 1/4W Carbon	1	S
R169	RRD18XK123	12 k 1/8W Chip	1	
R190	RRD18XK103	10 k " "	1	
R191	RRD18XK152	1.5 k " "	1	
R192	RRD18XK222	2.2 k " "	1	
R193	RRD18XK183	18 k " "	1	
R194	RRD18XK103	10 k " "	1	
R195	RRD18XK183	18 k " "	1	
R201	RRD18XK224	220 k " "	1	
R202	RRD18XK153	15 k " "	1	
R203	RRD18XK683	68 k " "	1	
R204	RRD18XK101	100 " "	1	
R206	RRD18XK392	3.9 k " "	1	
R207	RRD18XK682	6.8 k " "	1	
R208	RRD18XK100	10 " "	1	
R209	RRD18XK222	2.2 k " "	1	
R210	RRD18XK681	680 " "	1	
R211	RRD18XK683	68 k " "	1	
R212	RRD18XK101	100 " "	1	
R213	RRD18XK123	12 k " "	1	
R215	RRD18XK392	3.9 k " "	1	
R216	RRD18XK682	6.8 k " "	1	
R217	ERD25FJ680	68 1/4W Carbon	1	S
R218	RRD18XK123	12 k 1/8W Chip	1	
R219	RRD18XK182	1.8 k " "	1	
R220	RRD18XK680	68 " "	1	
R221	RRD18XK334	330 k " "	1	
R222	RRD18XK472	4.7 k " "	1	
R223	RRD18XK472	4.7 k " "	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R224	RRD18XK153	15 k 1/8W Chip	1	
R227	RRD18XK103	10 k " "	1	
R228	RRD18XK472	4.7 k " "	1	
R229	RRD18XK153	15 k " "	1	
R232	RRD18XK103	10 k " "	1	
R233	RRD18XK472	4.7 k " "	1	
R234	RRD18XK683	68 k " "	1	
R235	RRD18XK153	15 k " "	1	
R236	RRD18XK153	15 k " "	1	
R237	RRD18XK332	3.3 k " "	1	
R238	RRD18XK473	47 k " "	1	
R239	RRD18XK473	47 k " "	1	
R240	RRD18XK474	470 k " "	1	
R241	RRD18XK682	6.8 k " "	1	
R242	RRD18XK820	82 " "	1	
R243	RRD18XK104	100 k " "	1	
R244	RRD18XK184	180 k " "	1	
R245	RRD18XK102	1 k " "	1	
R246	RRD18XK334	330 k " "	1	
R247	RRD18XK470	47 " "	1	
R248	RRD18XK682	6.8 k " "	1	
R249	RRD18XK562	5.6 k " "	1	
R250	RRD18XK683	68 k " "	1	
R251	RRD18XK472	4.7 k " "	1	
R252	RRD18XK822	8.2 k " "	1	
R253	RRD18XK332	3.3 k " "	1	
R254	RRD18XK104	100 k " "	1	
R255	RRD18XK223	22 k " "	1	
R256	RRD18XK272	2.7 k " "	1	
R257	RRD18XK471	470 " "	1	
R258	RRD18XK472	4.7 k " "	1	
R259	RRD18XK681	680 " "	1	
R260	RRD18XK152	1.5 k " "	1	
R261	RRD18XK221	220 " "	1	
R262	RRD18XK103	10 k " "	1	
R263	RRD18XK560	56 " "	1	
R264	ERD25FJ101	100 1/4W Carbon	1	S
R265	RRD18XK472	4.7 k 1/8W Chip	1	
R266	RRD18XK104	100 k " "	1	
R267	RRD18XK102	1 k " "	1	
R268	ERD25FJ1R0	1 1/4W Carbon	1	S
R269	RRD18XK123	12 k 1/8W Chip	1	
R290	RRD18XK103	10 k " "	1	
R291	RRD18XK152	1.5 k " "	1	
R292	RRD18XK222	2.2 k " "	1	
R293	RRD18XK183	18 k " "	1	
R294	RRD18XK103	10 k " "	1	
R295	RRD18XK183	18 k " "	1	
R301	RRD18XK562	5.6 k " "	1	
R303	RRD18XK474	470 k " "	1	
R306	RRD18XK152	1.5 k " "	1	
R307	RRD18XK331	330 " "	1	
R308	ERD25FJ1R0	1 1/4W Carbon	1	S
R309	RRD18XK333	33 k 1/8W Chip	1	
R310	ERD2FCJ2R2	2.2 2W Carbon	1	
R311	RRD18XK222	2.2 k 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R312	RRD18XK222	2.2 k 1/8W Chip	1	
R313	RRD18XK222	2.2 k " "	1	
R314	RRD18XK272	2.7 k " "	1	
R315	RRD18XK272	2.7 k " "	1	
R316	RRD18XK102	1 k " "	1	
R317	ERC14GK106	10 M 1/4W Solid	1	S
R318	RRD18XK102	1 k 1/8W Chip	1	
R319	RRD18XK472	4.7 k " "	1	
R320	RRD18XK222	2.2 k " "	1	
R321	RRD18XK103	10 k " "	1	
R322	RRD18XK101	100 " "	1	
R323	RRD18XK102	1 k " "	1	
R324	RRD18XK100	10 " "	1	
R325	RRD18XK681	680 " "	1	
R326	RRD18XK224	220 k " "	1	
R327	RRD18XK334	330 k " "	1	
R328	RRD18XK473	47 k " "	1	
R329	RRD18XK333	33 k " "	1	
R330	RRD18XK101	100 " "	1	
R331	RRD18XK102	1 k " "	1	
R332	RRD18XK101	100 " "	1	
R335	RRD18XK101	100 " "	1	
R336	RRD18XK223	22 k " "	1	
R337	RRD18XK680	68 " "	1	
R338	ERD25FJ330	33 1/4W Carbon	1	S
R340	RRD18XK123	12 k 1/8W Chip	1	
R341	RRD18XK330	33 " "	1	
R343	ERD25FJ222	2.2 k 1/4W Carbon	1	S
R344	RRD18XK220	22 1/8W Chip	1	
R345	RRD18XK222	2.2 k " "	1	
R346	ERC12ZGM335	3.3 M 1/2W Solid	1	
R390	RRD18XK102	1 k 1/8W Chip	1	
R391	ERD25FJ680	68 1/4W Carbon	1	S
R392	ERD25TJ335	3.3 M " "	1	S
R394	RRD18XK682	6.8 k 1/8W Chip	1	
R401	RRD18XK103	10 k " "	1	
R403	ERD25FJ331	330 1/4W Carbon	1	S
R404	RRD18XK102	1 k 1/8W Chip	1	
R405	RRD18XK561	560 " "	1	
R406	RRD18XK102	1 k " "	1	
R407	RRD18XK221	220 " "	1	
R408	RRD18XK221	220 " "	1	
R409	RRD18XK102	1 k " "	1	
R410	RRD18XK102	1 k " "	1	
R411	RRD18XK102	1 k " "	1	
R412	RRD18XK102	1 k " "	1	
R413	RRD18XK102	1 k " "	1	
R501	ERD25FJ471	470 1/4W Carbon	1	S
R502	RRD18XK103	10 k 1/8W Chip	1	
R503	RRD18XK222	2.2 k " "	1	
R504	RRD18XK103	10 k " "	1	
R505	RRD18XK682	6.8 k " "	1	
R506	RRD18XK103	10 k " "	1	
R507	ERD25FJ471	470 1/4W Carbon	1	S
R508	ERD25FJ332	3.3 k " "	1	S
R509	RRD18XK103	10 k 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R510	ERD25FJ332	3.3 k 1/4W Carbon	1	S
R511	ERD25FJ471	470 " "	1	S
R512	RRD18XK333	33 k 1/8W Chip	1	
R513	RRD18XK224	220 k " "	1	
R514	RRD18XK152	1.5 k " "	1	
R515	RRD18XK104	100 k " "	1	
R516	ERD25FJ102	1 k 1/4W Carbon	1	S
R517	ERD25FJ272	2.7 k " "	1	S
R520	RRD18XK222	2.2 k 1/8W Chip	1	
R521	RRD18XK472	4.7 k " "	1	
R522	RRD18XK332	3.3 k " "	1	
R523	RRD18XK682	6.8 k " "	1	
R524	RRD18XK103	10 k " "	1	
R525	RRD18XK103	10 k " "	1	
R526	ERD25FJ103	10 k 1/4W Carbon	1	S
R528	ERD25FJ222	2.2 k " "	1	S
R529	RRD18XK333	33 k 1/8W Chip	1	
R551	ERD25FJ471	470 1/4W Carbon	1	S
R552	RRD18XK103	10 k 1/8W Chip	1	
R553	RRD18XK332	3.3 k " "	1	
R554	RRD18XK153	15 k " "	1	
R555	RRD18XK682	6.8 k " "	1	
R556	RRD18XK103	10 k " "	1	
R557	ERD25FJ471	470 1/4W Carbon	1	S
R558	ERD25FJ332	3.3 k " "	1	S
R559	RRD18XK103	10 k 1/8W Chip	1	
R560	RRD18XK332	3.3 k " "	1	
R561	ERD25FJ471	470 1/4W Carbon	1	S
R562	RRD18XK333	33 k 1/8W Chip	1	
R563	RRD18XK224	220 k " "	1	
R564	RRD18XK152	1.5 k " "	1	
R565	RRD18XK104	100 k " "	1	
R566	ERD25FJ102	1 k 1/4W Carbon	1	S
R567	ERD25FJ272	2.7 k " "	1	S
		CAPACITORS (Value is in MICRO FARADS except P.P=PICO FARADS)		
C1	ECUX1H102MD	0.001 50V Chip	1	
C2	ECUX1H103MD	0.01 " "	1	
C5	ECUX1H220KC	22 P " "	1	
C6	ECUX1H102MD	0.001 " "	1	
C7	ECUX1H070DC	7 P " "	1	
C8	ECUX1H150KC	15 P " "	1	
C11	ECUX1H120KC	12 P " "	1	
C12	ECUX1H100KC	10 P " "	1	
C13	ECEA1HS0R1	0.1 " Electrolytic	1	
C14	ECUX1H103MD	0.01 " Chip	1	
C15	ECUX1H103MD	0.01 " "	1	
C18	ECUX1H070DC	7 P " "	1	
C21	ECEA1CS330	33 16V Electrolytic	1	S
C22	ECEA1HS100	10 50V "	1	S
C23	ECUX1H331KD	330 P " Chip	1	
C24	ECUX1H560KC	56 P " "	1	
C25	ECUX1H223MD	0.022 " "	1	
C26	ECEA1HS0R1	0.1 " Electrolytic	1	
C27	ECUX1H223MD	0.022 " Chip	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C28	ECUX1H473MD	0.047 50V Chip	1	
C29	ECUX1H473MD	0.047 " "	1	
C30	ECUX1H102MD	0.001 " "	1	
C31	ECUX1H471MD	470 P " "	1	
C32	ECEA1AS221	220 10V Electrolytic	1	S
C33	ECEA25Z4R7	4.7 25V "	1	S
C34	ECEA1AS101	100 10V "	1	S
C35	ECEA50Z1	1 50V "	1	S
C36	ECUX1H153MD	0.015 " Chip	1	
C37	ECQS2B681JZ	680 P " Styrol	1	
C38	ECEA1HSR22	0.22 " Electrolytic	1	
C39	ECEA50ZR47	0.47 " "	1	S
C40	ECEA50Z3R3	3.3 " "	1	S
C41	ECUX1H153MD	0.015 " Chip	1	
C42	ECUX1H153MD	0.015 " "	1	
C43	ECEA50ZR47	0.47 " Electrolytic	1	S
C44	ECEA50ZR47	0.47 " "	1	S
C45	ECEA1AS101	100 10V "	1	S
C46	ECUX1H101KD	100 P 50V Chip	1	
C47	ECUX1H102MD	0.001 " "	1	
C48	ECUX1H030CC	3 P " "	1	
C49	ECUX1H103MD	0.01 " "	1	
C50	ECUX1H331KD	330 P " "	1	
C51	ECUX1H102MD	0.001 " "	1	
C52	ECUX1H101KD	100 P " "	1	
C53	ECUX1H221KD	220 P " "	1	
C55	ECCD1H331K	330 P " Ceramic	1	
C56	ECUX1H102MD	0.001 " Chip	1	
C58	ECUX1H470KC	47 P " "	1	
C59	ECKD1H102MD	0.001 " Ceramic	1	
C60	ECKD1H102MD	0.001 " "	1	
C101	ECEA50Z1	1 " Electrolytic	1	S
C102	ECEA0JK470	47 6.3V "	1	
C103	ECFVD333KD	0.033 25V Semi-Conductor	1	
C104	ECEA1HK010	1 50V Electrolytic	1	
C105	ECEA50Z1	1 " "	1	S
C106	ECEA1HSR22	0.22 " "	1	
C107	ECEA1HK0R1	0.1 " "	1	
C108	ECFVD333KD	0.033 25V Semi-Conductor	1	
C109	ECUX1H681KD	680 P 50V Chip	1	
C110	ECEA1HK010	1 " Electrolytic	1	
C111	ECEA1AS470	47 10V "	1	S
C112	ECEA0JK470	47 6.3V "	1	
C113	ECUX1H103MD	0.01 50V Chip	1	
C115	ECEA1HK010	1 " Electrolytic	1	
C116	ECCD1H101K	100 P " Ceramic	1	
C117	ECQS2B361JZ	360 P " Styrol	1	
C118	ECEA50Z1	1 " Electrolytic	1	S
C119	ECUX1H102ZF	0.001 " Chip	1	
C120	ECEA50Z1	1 " Electrolytic	1	S
C122	ECEA50Z1	1 " "	1	S
C123	ECEA1HS0R1	0.1 " "	1	
C124	ECEA1EK3R3	3.3 25V "	1	
C125	ECEA1EK3R3	3.3 " "	1	
C126	ECEA1CK100	10 16V "	1	
C128	ECFVD223KA	0.022 25V Semi-Conductor	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C129	ECUX1H152MD	0.0015 50V Chip	1	
C130	ECEA50Z1	1 " Electrolytic	1	S
C132	ECEA1AS101	100 10V "	1	S
C133	ECEA1AS101	100 " "	1	S
C134	ECQG05224JZ	0.22 50V Polyester	1	
C135	ECEA0JS102	1000 6.3V Electrolytic	1	S
C136	ECUX1H103MD	0.01 50V Chip	1	
C137	ECUX1H102MD	0.001 " "	1	
C138	ECUX1H681KD	680 P " "	1	
C139	ECUX1H102MD	0.001 " "	1	
C140	ECUX1H222MD	0.0022 " "	1	
C143	ECUX1H102ZF	0.001 " "	1	
C144	ECUX1H102ZF	0.001 " "	1	
C145	ECUX1H681KD	680 P " "	1	
C190	ECUX1H153MD	0.015 " "	1	
C191	ECEA1HSR22	0.22 " Electrolytic	1	
C192	ECUX1H472MD	0.0047 " Chip	1	
C193	ECEA50Z2R2	2.2 " Electrolytic	1	S
C194	ECEA50Z1	1 " "	1	S
C195	ECUX1H102MD	0.001 " Chip	1	
C196	ECFVD473MD	0.047 25V Semi-Conductor	1	
C197	ECUX1H473MD	0.047 50V Chip	1	
C201	ECEA50Z1	1 " Electrolytic	1	S
C202	ECEA0JK470	47 6.3V "	1	
C203	ECFVD333KD	0.033 25V Semi-Conductor	1	
C204	ECEA1HK010	1 50V Electrolytic	1	
C205	ECEA50Z1	1 " "	1	S
C206	ECEA1HKR22	0.22 " "	1	
C207	ECEA1HK0R1	0.1 " "	1	
C208	ECFVD333KD	0.033 25V Semi-Conductor	1	
C209	ECUX1H681KD	680 P 50V Chip	1	
C210	ECEA1HK010	1 " Electrolytic	1	
C211	ECEA0JK470	47 6.3V "	1	
C212	ECEA0JK470	47 " "	1	
C213	ECUX1H103MD	0.01 50V Chip	1	
C215	ECEA1HK010	1 " Electrolytic	1	
C216	ECCD1H101K	100 P " Ceramic	1	
C217	ECQS2B361JZ	360 P " Styrol	1	
C218	ECEA50Z1	1 " Electrolytic	1	S
C219	ECUX1H102ZF	0.001 " Chip	1	
C220	ECEA50Z1	1 " Electrolytic	1	S
C222	ECEA50Z1	1 " "	1	S
C223	ECEA1HK0R1	0.1 " "	1	
C224	ECEA1EK3R3	3.3 25V "	1	
C225	ECEA1EK3R3	3.3 " "	1	
C226	ECEA1CK100	10 16V "	1	
C228	ECFVD223KA	0.022 25V Semi-Conductor	1	
C229	ECUX1H152MD	0.0015 50V Chip	1	
C230	ECEA50Z1	1 " Electrolytic	1	S
C232	ECEA1AS101	100 10V "	1	S
C233	ECEA1AS101	100 " "	1	S
C234	ECQS05224JZ	0.22 50V Styrol	1	
C235	ECEA0JS102	1000 6.3V Electrolytic	1	S
C236	ECUX1H103MD	0.01 50V Chip	1	
C237	ECUX1H102MD	0.001 " "	1	
C238	ECUX1H681KD	680 P " "	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C239	ECUX1H102MD	0.001 50V Chip	1	
C240	ECUX1H222MD	0.0022 " "	1	
C243	ECUX1H102ZF	0.001 " "	1	
C244	ECUX1H102ZF	0.001 " "	1	
C245	ECUX1H681KD	680 P " "	1	
C290	ECUX1H153MD	0.015 " "	1	
C291	ECEA1HKR22	0.22 " Electrolytic	1	
C292	ECUX1H472MD	0.0047 " Chip	1	
C293	ECEA50Z2R2	2.2 " Electrolytic	1	S
C294	ECEA50Z1	1 " "	1	S
C295	ECUX1H102MD	0.001 " Chip	1	
C296	ECUX1H473MD	0.047 " "	1	
C297	ECUX1H473MD	0.047 " "	1	
C301	ECEA1HKR22	0.22 " Electrolytic	1	
C302	ECUX1H102ZF	0.001 " Chip	1	
C303	ECEA1CK100	10 16V Electrolytic	1	
C304	ECEA1EK3R3	3.3 25V "	1	
C305	ECQS2B392JZ	3900 P 50V Styrol	1	
C306	ECQG05473MZ	0.047 " Polyester	1	
C307	ECEA1AS221	220 10V Electrolytic	1	S
C308	ECFVD683MD	0.068 25V Semi-Conductor	1	
C309	ECUX1H332MD	0.0033 50V Chip	1	
C310	ECUX1H332MD	0.0033 " "	1	
C311	ECUX1H682MD	0.0068 " "	1	
C312	ECEA1HK010	1 " Electrolytic	1	
C313	ECEA0JV221	220 6.3V "	1	
C314	ECEA1AS221	220 10V "	1	S
C316	ECEA25Z4R7	4.7 25V "	1	S
C318	ECEA1ASS471	470 10V "	1	
C319	ECEA1AS221	220 " "	1	S
C320	ECEA1ASS471	470 " "	1	
C321	ECEA0JS471	470 6.3V "	1	S
C322	ECEA1AV221	220 10V "	1	
C323	ECEA1CS332	3300 16V "	1	S
C324	ECEA1AS101	100 10V "	1	S
C325	ECUX1H682MD	0.0068 50V Chip	1	
C326	ECKD1H103ZF	0.01 " Ceramic	1	
C327	ECKD1H103ZF	0.01 " "	1	
C328	ECKD1H103ZF	0.01 " "	1	
C329	ECKD1H103ZF	0.01 " "	1	
C330	ECUX1H103MD	0.01 " Chip	1	
C331	ECEA1HK010	1 " Electrolytic	1	
C332	ECEA1HKR47	0.47 " "	1	
C333	ECEA1HK010	1 " "	1	
C334	ECEA1CK100	10 16V "	1	
C335	ECEA1EK4R7	4.7 25V "	1	
C336	ECEA0JK220	22 6.3V "	1	
C337	ECEA1CS330	33 16V "	1	S
C338	ECEA1ASS471	470 10V "	1	
C339	ECEA1AV221	220 " "	1	
C341	ECUX1H103ZF	0.01 50V Chip	1	
C343	ECQS05224JZ	0.22 " Styrol	1	
C344	ECEA50Z3R3	3.3 " Electrolytic	1	S
C350	ECUX1H101KD	100 P " Chip	1	
C351	ECUX1H101KD	100 P " "	1	
C352	ECKD1H471KB	470 P " Ceramic	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C390	ECEA1AS471	470 10V Electrolytic	1	S
C391	ECEA1HKR22	0.22 50V "	1	
C392	ECUX1H103MD	0.01 " Chip	1	
C401	ECEA1HS100	10 " Electrolytic	1	S
C402	ECEA1AV221	220 10V "	1	
C501	ECEA1CS221	220 16V "	1	S
C502	ECEA0JK470	47 6.3V "	1	
C503	ECEA1CS330	33 16V "	1	S
C504	ECEA50Z3R3	3.3 50V "	1	S
C505	ECEA1AS470	47 10V "	1	S
C506	ECUX1H103ZF	0.01 50V Chip	1	
C510	ECUX1H223ZF	0.022 " "	1	
C520	ECEA0JK330	33 6.3V Electrolytic	1	
C522	ECEA1AS101	100 10V "	1	S
C551	ECEA1CS221	220 16V "	1	S
C552	ECEA0JK470	47 6.3V "	1	
C553	ECEA1CS330	33 16V "	1	S
C554	ECEA50Z3R3	3.3 50V "	1	S
C555	ECEA1AS470	47 10V "	1	S
C556	ECUX1H103ZF	0.01 50V Chip	1	
		CABINET PARTS		
K1	RYMXD30M8	Front Cabinet Ass'y	1	
K1-1	RYQ1XD30N	Cassette Panel Ass'y (Left)	1	
K1-2	RYQ2XD30N	Cassette Panel Ass'y (Right)	1	
K1-3	RUS450Z	Spring, Cassette Panel	2	
K1-4	RMD2052Z	Bracket, Spring	2	
K1-5	RDG5697Z	Gear, Cassette Panel	2	
K1-6	RME282Z	Holder, Gear	2	
K1-7	XTV3+10G	Screw, Bracket M'tg	13	
K2	RYFXD30M8	Rear Cabinet Ass'y, For USA	1	
K2	RYFXD30C8	Rear Cabinet Ass'y, For Canada	1	
K2-1	RJF1073Z	Terminal, EXT Antenna	2	
K2-2	RJS3L1Z	Socket, 3 Pin	1	
K2-3	RJT462Z	Terminal, Socket	3	
K2-4	RJT698Z	Terminal, Telescopic Antenna	1	
K2-5	RJC512Z	Spring, Battery - Side	1	
K2-6	RJT398Y	Connecting Pipe, Spring	1	
K2-7	RJC111Z	Terminal, Battery + Side	1	
K2-8	RJC915Z	Terminal, Battery +, - Side	1	
K2-9	RKH114Z8	Handle	1	
K2-10	RKX233Z	Arm, Handle	2	
K2-11	RKX184Z	Washer, Arm	2	
K2-12	RKT130Z	Stopper, Arm	2	
K2-13	XTC3+8CFN	Screw, Handle M'tg	2	
K3	RYNXD30N8	Battery Cover Ass'y	1	
K4	XEARR345CAN	Telescopic Antenna	1	S
K5	RUV634Z	Cover, Jack	1	
K6	RBN559Z	Knob, Tuning	1	
K7	RBS191Z	Knob, Band, Mode, etc.	5	
K8	RBS192Z	Knob, Mixing	1	
K9	RBS193Z	Knob, Bass, Treble, etc.	4	
K10	XTN35+45G	Screw, Cabinet M'tg	8	
K11	XYN3+F16FN	Screw, Telescopic Antenna M'tg	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		ELECTRICAL PARTS		
E1	RZAXD30N	Dial Chassis Ass'y	1	
E1-1	RDR21-1	Pulley	4	
E1-2	RDY45Z	Shaft, Pulley	4	
E1-3	RDT9124Z	Shaft, Tuning	1	
E1-4	XUC2FT	Circlip, Tuning Shaft	1	S
E2	RZUXD30N	Pointer Guide Ass'y	1	
E3	RUS453Z	Spring, Pointer	1	
E4	RUV628Z	Cover, Knob	5	
E5	RME283Z	Holder, Mic	1	
E6	RDA96Z	Holder, Pointer	1	
E7	RDR20-3	Pulley, Dial	2	
E8	RDR43Z	Pulley, Dial	1	
E9	RDD5012Z	Drum, Dial	1	
E10	RDS3060A	Spring, Dial	1	
E11	RDS4091Z	Spring, Dial	1	
E12	RDZ05A1	Cord, Dial	1 ROLL	
E13	RNW150-2	Washer, Pulley	3	
E14	RHG574Z	Rubber, Mic	2	
E15	RKE394Z	Jack Board	1	
E16	RKE397Z	Stay Shaft	1	
E17	RDP840Z	Pointer, Dial	1	
E18	RBC374Z	Button, Rec Mute	1	
E19	RBD150Z	Knob, Tape Selector	2	
E20	RJS3L1Z	Socket, 3 Pin	1	
E21	RJS3L3Z	Socket, 3 Pin	1	
E22	RJS4L1Z	Socket, 4 Pin	1	
E23	RJS5L3Z	Socket, 5 Pin	5	
E24	RJS6L1Z	Socket, 6 Pin	2	
E25	RJS7L3Z	Socket, 7 Pin	1	
E26	RJT462Z	Terminal, Socket	7	
E27	RJT707Z	Terminal, Socket	37	
E28	RJP3G4Z	Plug, CP10	1	
E29	RJP3G1Z	Plug, CP12, 13	2	
E30	RJP4G1Z	Plug, CP1	1	
E31	RJP5G4Z	Plug, CP2, 5 ∿ 8	5	
E32	RJP6G4Z	Plug, CP3, 11	2	
E33	RJP7G4Z	Plug, CP4	1	
E34	RUV622Z	Cover, Voltage Selector	1	⚠
E35	RUV603Z	Cover, AC IN	1	⚠
E36	RMS58Z	Bracket, Speaker	6	
E37	RMC607Z	Shield Cover, IC2	1	
E38	RJM142Z	Built-In Microphone	2	
E39	QTF1054	Terminal, Fuse	2	⚠
E40	XBA1C20NS5	Fuse	1	⚠
E41	RJT514Z	Terminal, Earth	1	
E42	RMP176Z	Holder, LED	2	
E43	RMP177Z	Holder, LED	1	
E44	XUC2FT	Circlip	1	S
E45	XTV3+8G	Screw, Circuit Board M'tg	4	
E46	XTV3+12GR	Red Screw, Circuit Board M'tg	21	
E47	XSN3+8S	Screw, Transformer M'tg	2	S
E48	XWG3	Washer	2	S
E49	XTV3+10G	Screw, Transformer M'tg	4	
E50	XSN3+6S	Screw, Circuit Board M'tg	8	S
E51	XWC3B	Washer	2	S
E52	XSN26+8	Screw, Drum M'tg	1	S
E53	XWA26B	Washer	1	S
		ACCESSORY		
	RJA22Y	Power Cord, AC	1	⚠
		PACKING MATERIALS		
P1	XZB60X50A04	Polyethylene Cover	1	S
P2	XZB10X20A04	Polyethylene Cover	1	S
P3	RPN9382Y	Pad	1	
P4	RPK1294Z	Gift Box, For USA	1	
P4	RPK1295Z	Gift Box, For Canada	1	
		PRINTED MATERIALS		
Y1	RQX6849Z	Instruction Book, For USA	1	
Y1	RQX6850Z	Instruction Book, For Canada	1	

RD ⊕ M
Printed in Japan

TECHNISCHE DATEN

Radio Frequenzbereich: UKW: 88~108 MHz
MW: 525~1605 kHz (571~187 m)

Strombedarf: Wechselstrom 100~110/115~127/200~220/230~250 V, 50/60 Hz
Stromverbrauch: 90 W
Batterie: 15 V (zehn-UM-1, Trockenbatterien Größe "D")
Autobatterie: 13,2 V (mit Autobatteriekabel)

Leistungsausgang: 90 W (45 W×2).....PMPO
50 W (45 W 2).....RMS (max.)

Lautsprecher: Baßtöner: 20 cm PM dynamischer Lautsprecher×2
Hochtöner: 6,5 cm PM dynamischer Sprecher×2

Frequenzbereich: 60~12.000 Hz (mit Normalband)
60~14.000 Hz (mit CrO_2-Band)
60~15.000 Hz (mit Metal-Band) entsprechenden Bändern)

Aufnahmesystem: Wechselstromvorspannung 75 kHz/55 kHz, Wechselstromlöschung

Bandgeschwindigkeit: 4,8 cm/s (1-7/8 i.p.s.)

Programmzeit: 1 Stunde mit C-60 Cassettenband

Schnellvorlauf-und Rückspulzeit: Ungefähr 120 s mit C-60 Cassettenband

Spursystem: 4-Spur, 2-Kanal Stereo-Aufnahme und Wiedergabe

Buchsen:
Eingang: MIC (STEREO POSITION): Empfindlichkeit 0,5 mV/ verwendbare Mikrofonimpedanz 600Ω (jedes)
MIC (MONO POSITION): Empfindlichkeit 2,0 mV/ anwendbare Mikrofonimpedanz 600Ω (jedes)
GUITAR: Empfindlichkeit 10 mV/ 150 kΩ über
AUX: Empfindlichkeit 25 mV/ 10 kΩ über
LINE IN: Empfindlichkeit 250 mV/ 50 kΩ über
PHONO: Empfindlichkeit 2,0 mV/ 50 kΩ

Ausgang: LINE OUT: Bezugsausgangspegel 0,39 V/10 kΩ unter
EXT. SP.: 4~8Ω
HEADPHONES: 8Ω

Abmessungen (H×H×T): Hauptanlage:
31,9 cm×44,3 cm×24,2 cm
$12^{5}/_{8}$×$17^{7}/_{16}$×$9^{1}/_{2}$ Zoll
Lautsprecherbox:
31,9 cm×44,3 cm×29,0 cm
$12^{5}/_{8}$×$17^{7}/_{16}$×$11^{7}/_{16}$ Zoll

Gewicht: Hauptanlage:
12,8 kg (28 lbs 3 oz) ohne Batterien
Lautsprecherbox:
9,4 kg (20 lbs 11 oz)

Änderungen der technischen Daten vordehalten.

AUSRICHTUNGSANWEISUNGEN

■ Radio

Anmerkungen
1. Lautstärkensteuerung..... Maximum (MW-IF und RF), Zentrum (UKW-RF), Minimum (UKW-IF)
2. Höhensteuerung..... Zentrum
3. Baßsteuerung..... Zentrum
4. Balancesteuerung..... Zentrum
5. Funktionswähler..... MW, UKW, MONO, UKW AUTO
6. Stromschalter..... Ein
7. Der Ausgang des Signalgenerators sollte nicht höher sein, als zum Erhalt der Ausgangsablesung nötig ist.
8. Es ist sicherzustellen, daß das Lautsprechersystem beim Ausrichten mit dem Empfänger verbunden ist (sonst 8Ω Kunstlastwiderstände verwenden).

Schritt	Signal- oder Ablenkgenerator Verbindung	Signal- oder Ablenkgenerator Frequenz	Radio-scheibensatz-einstellung	Anzeiger (VTVM oder Kathodenstrahl-oszillograph)	Abstimmen	Anmerkungen
MW-IF und RF-Ausrichtung						
1	Aus mehreren Drahtwindungen ist eine Schleife zu formen und das Signal in die Schleife des Empfängers auszustrahlen.	455 kHz 30% Mod mit 400 Hz	Störungsfreier Punkt	Ausgangsmeter über Lautsprecherbuchse (L) (Imp 8Ω)	T201 (MW 1. IFT) T202 (MW 2. IFT)	Auf maximalen Ausgang abstimmen
2		550kHz 30% Mod mit 400 Hz	550 kHz (6,88 mm)		L201 (MW ANT Spule) L202 (MW OSZ Spule)	Auf maximalen ausgang durch Schieben der Spule (L201) auf dem Eisenkern einstellen.
3		1500 kHz 30% Mod mit 400 Hz	1500 kHz (106,97mm)		CT201 (MW ANT Trimmer) CT202 (MW OSZ Trimmer)	Auf maximalen Ausgang abstimmen. Schritte (2) und (3) wiederholen.

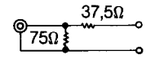
Anmerkung: Antennenspule (L201) nach erfolgter Ausrichtung mit Wachs festzementieren.

UKW-IF-Ausrichtung

1	Hohe Seite durch 1 pF zum Körper von IC101.	10.7 MHz (400 kHz SWP)	Störungsfreier Punkt	Vertikalen Ampere-Eingang des Kathodenstrahloszillographs zwischen Punkt TP201 und TPE anschließen.	T101 (UKW 1. IFT) T203 (UKW 2. IFT) (S. Anmerkung)	T101 abstimmen auf maximale Amplitude und symetrische Kurve
2					T204 (UKW Scheibe IFT)	Abstimmen auf maximale Amplitude und richtige Liniarität etwa zwischen den 100 kHz-Markierungen

Anmerkung: Vor der Druchführung des ersten Schrittes zur Ausrichtung sind die Kerne von T204 ganz nach links zu drehen.

UKW-RF-Ausrichtung

1	Durch Blindantenne mit EXT-UKW-Antenne verbinden. 	87,35 MHz 30% Mod mit 400 Hz	87,35 MHz	Ausgangsmesser über Lautsprecherbuchse (L) (Imp. 8Ω)	L102 (UKW-OSZ-Spule)	Auf maximalen Ausgang abstimmen
		90 MHz 30% Mod mit 400 Hz	90MHz (14,9 mm)		L101 (UKW-ANT-Spule)	
2		108,3 MHz 30% Mod mit 400 Hz	108,3 MHz (122,5 mm)		CT102 (UKW-OSZ-Trimmer)	Auf maximalen Ausgang abstimmen Schritt (1) und (2) wiederholen
		106 MHz 30% Mod mit 400 Hz	106 MHz (106,8 mm)		CT101 (UKW-ANT-Trimmer)	

AUSRICHTUNGSANWEISUNGEN

■ UKW-Stereo-Ausrichtung

Steuerpositionen:
Tuner Lautstärkensteuerung..... Hörpegel des Lautsprechertones
Tonsteuerung..... Zentrum
Funktionswähler..... UKW AUTO
Balancesteuerung..... Zentrum

Ausrüstungsverbindungen	Abstimmung	Anmerkungen
Frequenzzähler mit TP301, Erde bei 98 MHz und Nichtmodulation mit 60 dB Eingang verbinden.	VR302	VR302 an der Frequenzzählerablesung auf 19 kHz ±50 Hz abstimmen.
TRENNUNGSAUSRICHTUNG		

ANMERKUNGEN:
1. Stereomodulator — Stereomodulator an EXT-Mod-Buchse des Signalgenerators anschließen.
2. Signalgenerator — Modulationsrate des 19 kHz Pilotsignals..... 9%
Modulationsrate des rechten und linken Signals..... 30%
Ausgangspegel..... 60 dB
3. Tuner (Balancesteuerung) — Balancesteuerung so abstimmen, daß der Ausgangspegel beider Kanäle gleich ist.

Ausrüstungsverbindung: Signalgenerator	Ausrüstungsverbindung: VTVM	Ausrüstungsverbindung: Oszilloskop	Abstimmung	Anmerkungen
Durch Blindantenne mit EXT-UKW-Antenne verbinden	Über Lautsprecherbuchse verbinden	Vertikalen Ampere-Eingang des Kathodenstrahloszilloskops an der Buchse des VTVM anschließen.	VR301 (Trennungssteuerung)	VR301 auf kleinste VTM-Anzeige von links abstimmen, wenn die rechte Seite des Stereosignals moduliert wird, VR301 auf gleiche Weise für die Modulation der linken Seite abstimmen. Abstimmen auf die bestmögliche Balance zwischen "L nach R" und "R nach L" Trennung.

■ Cassetten

Schritt	Ausrich objekt
1	Motorg schwin
2	Aufnah Vormag erung
3	Lösche Vormag erung
4	Aufnah Vormag erung

Schritt	Ausrich objekt
1	Aufnah Wieder kopf A
2	Dolby-
3	Aufnah Spannu

Schritt	A
1	VU-M
2	Batt

e Mikrofonimpedanz
OSITION):
keit 2,0mV/
Mikrofonimpedanz
pfindlichkeit 10mV/
kΩ über
pfindlichkeit 25mV/
kΩ über
pfindlichkeit 250mV/
kΩ über
pfindlichkeit 2,0mV/
kΩ
zugsausgangspegel
9V/10kΩ unter
8Ω
: 8Ω
cm×24,2cm
1/2 Zoll
ox:
cm×29,0cm
11 7/16 Zoll
s 3 oz) ohne
ox:
11 oz)
ehalten.

stlastwiderstände

Anmerkungen
naximalen Aus- abstimmen
naximalen aus- durch Schieben pule (L201) auf dem kern einstellen.
naximalen ang abstimmen. tte (2) und (3) erholen.

UKW-IF-Ausrichtung

1	Hohe Seite durch 1 pF zum Körper von IC101.	10.7 MHz (400 kHz SWP)	Störungsfreier Punkt	Vertikalen Ampere-Eingang des Kathodenstrahloszillographs zwischen Punkt TP201 und TPE anschließen.	T101 (UKW 1. IFT) T203 (UKW 2. IFT) (S. Anmerkung)	T101 abstimmen auf maximale Amplitude und symetrische Kurve
2					T204 (UKW Scheibe IFT)	Abstimmen auf maximale Amplitude und richtige Liniarität etwa zwischen den 100 kHz-Markierungen

Anmerkung: Vor der Druchführung des ersten Schrittes zur Ausrichtung sind die Kerne von T204 ganz nach links zu drehen.

UKW-RF-Ausrichtung

1	Durch Blindantenne mit EXT-UKW-Antenne verbinden.	87,35 MHz 30% Mod mit 400 Hz	87,35 MHz	Ausgangsmesser über Lautsprecher-buchse (L) (Imp. 8Ω)	L102 (UKW-OSZ-Spule)	Auf maximalen Ausgang abstimmen
		90 MHz 30% Mod mit 400 Hz	90MHz (14,9 mm)		L101 (UKW-ANT-Spule)	
2		108,3 MHz 30% Mod mit 400 Hz	108,3 MHz (122,5 mm)		CT102 (UKW-OSZ-Trimmer)	Auf maximalen Ausgang abstimmen Schritt (1) und (2) wiederholen
		106 MHz 30% Mod mit 400 Hz	106 MHz (106,8 mm)		CT101 (UKW-ANT-Trimmer)	

AUSRICHTUNGSANWEISUNGEN

■ UKW-Stereo-Ausrichtung

Steuerpositionen:

Tuner — Lautstärkensteuerung . . . . . Hörpegel des Lautsprechertones
Tonsteuerung. . . . . Zentrum
Funktionswähler . . . . . UKW AUTO
Balancesteuerung . . . . . Zentrum

Ausrüstungsverbindungen	Abstimmung	Anmerkungen
Frequenzzähler mit TP301, Erde bei 98 MHz und Nichtmodulation mit 60 dB Eingang verbinden.	VR302	VR302 an der Frequenzzählerablesung auf 19 kHz ±50 Hz abstimmen.
TRENNUNGSAUSRICHTUNG		
ANMERKUNGEN: 1. Stereomodulator — Stereomodulator an EXT-Mod-Buchse des Signalgenerators anschließen. 2. Signalgenerator — Modulationsrate des 19 kHz Pilotsignals . . . . . 9% Modulationsrate des rechten und linken Signals. . . . . 30% Ausgangspegel . . . . . 60 dB 3. Tuner (Balancesteuerung) — Balancesteuerung so abstimmen, daß der Ausgangspegel beider Kanäle gleich ist.		

Ausrüstungsverbindung			Abstimmung	Anmerkungen
Signalgenerator	VTVM	Oszilloskop		
Durch Blindantenne mit EXT-UKW-Antenne verbinden	Über Lautsprecherbuchse verbinden	Vertikalen Ampere-Eingang des Kathodenstrahloszilloskops an der Buchse des VTVM anschließen.	VR301 (Trennungssteuerung)	VR301 auf kleinste VTM-Anzeige von links abstimmen, wenn die rechte Seite des Stereosignals moduliert wird, VR301 auf gleiche Weise für die Modulation der linken Seite abstimmen. Abstimmen auf die bestmögliche Balance zwischen "L nach R" und "R nach L" Trennung.

AUSRICHTUNGSANWEISUNGEN

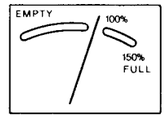
■ Cassettendeck

Schritt	Ausrichtungsobjekt	VTVM-Verbindung Positiv	VTVM-Verbindung Negativ	Bandwahl	Abstimmung	Anmerkungen
1	Motorgeschwindigkeit	Lautsprecher	Lautsprecher	—	Motor VR	VTT656 spielen und am Frequenzzähler auf 3000 Hz±15 Hz Anzeige abstimmen
2	Aufnahme Vormagnetisierung	TP403 (Linker Kanal)	TP401	METAL	VR808 VR807	VR808 Zentrum und VR807 so abstimmen, daß die Ablesung beider VTVM innerhalb 0,1 mV Unterschied liegt.
		TP402 (Rechter Kanal)	TP401			
3	Löschen Vormagnetisierung	TP801	TP802	METAL	VR809	VR809 so abstimmen, daß eine Ablesung von 140 +10, −5mV am VTVM erreicht wird. (CrO_2: 135~150 mV)
4	Aufnahme Vormagnetisierung	TP803 (Linker Kanal)	TP401	NORMAL	VR808	VR808 so abstimmen, daß eine Ablesung von 3,8 +0,2, −0,4 mV am VTVM erreicht wird. (CrO_2: 4,3~5,0 mV). Schritte 2 bis 4 wiederholen.
		TP402 (Rechter Kanal)	TP401			

AZIMUTH-, DOLBY-, AUFNAHME-(REC)-SPANNUNGSAUSRICHTUNG

Schritt	Ausrichtungsobjekt	VTVM-Verbindung Positiv	VTVM-Verbindung Negativ	Dolby-Schalter	Deckeinstellung	Abstimmung	Anmerkungen
1	Aufnahme/ Wiedergabekopf Azimuth	Lautsprecher	Lautsprecher	Aus	Wiedergabe	Wiedergabe/ Aufnahmekopfschraube (R/P)	Testband abspielen (VT653). Wiedergabe/Aufnahmekopfschraube auf maximalen Lautsprecherausgang einstellen.
2	Dolby-Pegel	TP405 (Linker Kanal)	TP401	Ein	Wiedergabe	VR405	Testband abspielen (VTT6130). VR405 und VR406 so abstimmen, daß eine Ablesung von 580±20 mV am VTVM erreicht wird.
		TP404 (Rechter Kanal)	TP401			VR406	
3	Aufnahme-Spannung	TP403 (Linker Kanal)	TP401		Aufnahme (REC)	VR403	TR802 an Stift 1 des MC5 anschließen. Ein Signal von 1 kHz, 500 mV ist sowohl TP404-TR401 als zuch TR405-TR401 zuführen und dann REC VR, um am VTVM eine Ablesung von 410 mV zu erhalten. VR403 und VR404 so abstimmen, daß eine Ablesung von 0,40±0,02mV am VTVM erreicht wird.
		TP402 (Rechter Kanal)	TP401			VR404	

METERAUSRICHTUNG

Schritt	Ausrichtungsobjekt	Eingangssignal	Abstimmung	Anmerkungen
1	VU-Meter	—	VR811 (Rch) VR812 (Lch)	Testband abspielen (TMT-6163). VR811 und VR812 für VU abstimmen, 3 dB (□□ Marke).
2	Batteriemesser	—	VR810	VR810 auf eine Ablenkung von 150% bei Wechselstromversorgung von 220 V abstimmen. 

FICHE TECHNIQUE

Gamme de fréquences radio: FM: 88~108MHz
PO: 525~1605kHz (571~187m)

Alimentation: 100~110/115~127/200~220/230~250V CA, 50/60Hz
Comsommation: 90W
Piles: 15V (dix piles sèches UM-1 de format "D")
Batterie d'automobile: 13,2V

Puissance: 90W (45W×2).....Musicaux
50W (35W×2).....Efficaces

Enceintes acoustiques: Woofer: 2 transducteurs dynamiques PM de 20cm
Tweeter: 2 transducteurs dynamiques PM de 6,5cm

Réponse en fréquence: 60~12.000Hz (avec bande normale)
60~14.000Hz (avec bande CrO_2)
60~15.000Hz (avec bande type) metal)

Système d'enregistrement: Prémagnétisation CA 57kHz/55kHz; effacement CA

Vitesse de défilement: 4,8cm/s

Temps d'enregistrement/reproduction: 1 heure avec cassette C-60

Temps d'avance accélérée et de rebobinage: Environ 120sec. avec cassette C-60

Système de pistes: 4 pistes, 2 canaux stéréo à l'enregistrement et à la reproduction

Prises:
Entrée: MIC (micro) (POSITION STEREO): sensibilité: 0,5mV/impédance de microphone: 600Ω (chacun).
MIC (micro) (POSITION MONO): sensibilité: 2,0mV/impédance de microphone: 600Ω (chacun).
GUITAR; sensibilité: 10mV/150kΩ ou plus
AUX (auxilliaire); sensibilité: 25mV/10kΩ ou plus
LINE IN (entrée ligne); sensibilité: 250mV/50kΩ ou plus
PHONO (table de lecture); sensibilité: 2,0mV/50kΩ

Sortie: LINE OUT (sortie ligne); niveau de sortie étalon: 0,39V/10kΩ sous 4~8Ω
EXT SP; 4~8Ω
HEADPHONES (casque d'écoute): 8Ω

Encombrement (1×H×P): Bloc central; 31,9cm×44,3cm×24,2cm $12^{5}/_{8}\times\times17^{7}/_{16}\times\times9^{1}/_{2}$
Coffrage d'enceinte; 31,9cm×44,3cm×29,0cm $12^{5}/_{8}\times17^{7}/_{16}\times11^{7}/_{16}$

Poids: Bloc central; 12,8kg (28 lbs 3 oz) sans piles
Coffrage d'enceintes: 9,4kg (20 lbs 11 oz)

Caractéristiques susceptibles de subir des modifications sans avis préalable.

INSTRUCTIONS POUR L'ALIGNEMENT

■ Radio

Note
1. Commande de volume..... Maximum (FI-AM et RF), médian (RF-FM) minimum (FI-FM)
2. Commande d'aiguës ..... Médian
3. Commande de graves ..... Médian
4. Commande d'équilibre..... Médian
5. Sélecteur de fonction..... AM, FM, MONO, FM, AUTO
6. Interrupteur général..... ON
7. La puissance de sortie du générateur de signaux ne doit pas dépasser la valeur nécessaire à l'obtention d'une indication de sortie.
8. Lors de l'alignement, veiller à ce que le haut-parleur soit connecté au récepteur (ou employer des résistances à charge équivalente de 8Ω).

OPE-RATION	GENERATEUR DE SIGNAUX OU GENERATEUR DE BALAYAGE		MISE AU POINT DE CADRAN D'ACCORD	INDICATEUR (VOLTMETRE ELECTRONIQUE OU ECRAN)	REGLAGE	REMARQUES
	CONNEXION	FREQUENCE				
			ALIGNEMENT DE FI ET DE RF DE AM			
1	Produire une boucle de plusieurs tours et irradier le signal dans la boucle du récepteur.	455 kHz à 30% de mod. avec 400 Hz	Point de non-interférence	Appareil de mesure de sortie branché à la prise de haut-parleur (Gche) (imp.: 8Ω)	T201 Ier TIF d'AM T202 (2ème TIF d'AM)	Régler sur la sortie maximum
2		550 kHz à 30% de mod. avec 400 Hz	550 kHz (6,88 mm)		L201 (bobine d'ant. AM) L202 (bobine d'osc. AM)	Régler sur la sortie maximum en faisant coulisser la bobine (L201) le long du noyau ferrite.
3		1500 kHz à 30% de mod. avec 400 Hz	1500 kHz (106, 97 mm)		CT201 (trimmer d'ant. AM) CT202 (trimmer d'osc. AM)	Régler sur la sortie maximum. Recommencer les opérations (2) et (3).

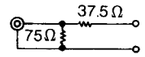
Note: enduire la bobine d'antenne (L201) de cire après avoir terminé l'alignement.

ALIGNEMENT DE FM-FI

1	Côté élevé par 1 pF à corps de CI101	10,7 MHz (balayage de 400 Hz)	Point de non-interférence	Connecter l'entrée d'ampli. vertical de l'écran entre les bornes TP201 et TPE.	T101 (Ier TFI de FM) T203 (2ème TFI de FM) (voir la note)	Régler T101 pour une amplitude maximum et une courbe symétrique.
2					T204 (TFI de disque FM)	Régler pour une amplitude maximum et une bonne linéarité environ entre les repères de 100 kHz.

Note: Avant l'alignement de l'opération 1, faire tourner les noyaux de T204 complètement dans le sens inverse des aiguilles d'une montre.

ALIGNEMENT DE FM-RF

1	Connecter là la borne d'antenne EXT FM par une antenne fictive commune avec le châssis. 	87,35 MHz, 30% de mod. avec 400 Hz	87,35 MHz	Appareil de mesure de sortie branchée à la prise de haut-parleur (Gche) (imp.: 8Ω)	L102 (bobine d'osc. FM)	Régler pour une sortie maximum
		90 MHz, 30% de mod. avec 400 Hz	90 MHz (14,9 mm)		L101 (bobine d'ant. FM)	
2		108,3 MHz, 30% de mod. avec 400 Hz	108, 3 MHz		CT102 (trimmer d'osc. FM)	Régler pour une sortie maximum Recommencer les opérations (1) et (2).
		106 MHz, 30% de mod. avec 400 Hz	106 MHz (106,8 mm)		CT101 (trimmer d'ant. FM)	

INSTRUCTIONS POUR L'ALIGNEMENT

■ Alignement stéréo FM

Positions des commandes:
Tuner Commande de volume..... Niveau audible de haut-parleur
Commande de tonalité ..... Médian
Sélecteur de fonction ..... FM AUTO
Commande d'équilibrage..... Médian

CONNEXION DE L'EQUIPEMENT	REGLAGE	REMARQUES
Connecter le compteur de fréquences à TP301 et la borne de masse à 98 MHz, non modulation avec entrée de 60 dB.	VR302	Régler VR302 pour une indication de 19 kHz ±50 Hz sur le compteur de fréquences.
ALIGNEMENT DE SEPARATION		

Notes:
1. Modulateur stéréo: Connecter le modulateur stéréo à la borne EXT MOD du générateur de signaux.
2. Générateur de signaux: Taux de modulation du signal pilote de 19 kHz..... 9%
Taux de modulation des signaux droit et gauche 30%
Niveau de sortie..... 60 dB
3. Tuner (commande d'équilibrage): Regler la commande d'équilibrage de manière à ce que le niveau de sortie des deux canaux soit équivalent.

CONNEXIONS DE L'EQUIPEMENT			REGLAGE	REMARQUES
GENERATEUR DE SIGNAUX	VOLTMETRE ELECTRONIQUE	OSCILLOSCOPE		
Connecter à la borne d'antenne EXT FM par une antenne fictive	Connecter à la prise de haut-parleur	VR301 (commande de séparation)	Connecter l'entrée d'ampli. vertical de l'écran au voltmètre électronique.	Régler VR301 pour une indication minimum du voltmètre électronique au niveau de la sortie gauche lorsque le signal stéréo de droite est modulé. Régler VR301 de la même manière que pour le côté droit. Régler de manière à obtenir le meilleur équilibre "Gche à Dte" et la meilleure séparation "Dte à Gche" possibles.

Note: Déconnecter le compteur de fréquences lors de l'alignement de séparation.

■ Platine n

OPE-RATION	D'A
1	Vite du r
2	Prér nétis
3	Pola d'ef
4	Prér nétis

OPE-RATION	D'A
1	Azin d'en
2	Nive Dolb
3	Cou d'en

OPE-RATION	F
1	VU-r
2	Tém

ALIGNEMENT DE FM-FI

1	Côté élevé par 1 pF à corps de CI101	10,7 MHz (balayage de 400 Hz)	Point de non-interférence	Connecter l'entrée d'ampli. vertical de l'écran entre les bornes TP201 et TPE.	T101 (ler TFI de FM) T203 (2ème TFI de FM) (voir la note)	Régler T101 pour une amplitude maximum et une courbe symétrique.
2					T204 (TFI de disque FM)	Régler pour une amplitude maximum et une bonne linéarité environ entre les repères de 100 kHz.

Note: Avant l'alignement de l'opération 1, faire tourner les noyaux de T204 complètement dans le sens inverse des aiguilles d'une montre.

ALIGNEMENT DE FM-RF

1	Connecter là la borne d'antenne EXT FM par une antenne fictive commune avec le châssis.	87,35 MHz, 30% de mod. avec 400 Hz	87,35 MHz	Appareil de mesure de sortie branchée à la prise de haut-parleur (Gche) (imp.: 8Ω)	L102 (bobine d'osc. FM)	Régler pour une sortie maximum
		90 MHz, 30% de mod. avec 400 Hz	90 MHz (14,9 mm)		L101 (bobine d'ant. FM)	
2		108,3 MHz, 30% de mod. avec 400 Hz	108, 3 MHz		CT102 (trimmer d'osc. FM)	Régler pour une sortie maximum Recommencer les opérations (1) et (2).
		106 MHz, 30% de mod. avec 400 Hz	106 MHz (106,8 mm)		CT101 (trimmer d'ant. FM)	

INSTRUCTIONS POUR L'ALIGNEMENT

■ Alignement stéréo FM

Positions des commandes:

Tuner Commande de volume. . . . . Niveau audible de haut-parleur
Commande de tonalité . . . . . Médian
Sélecteur de fonction . . . . . FM AUTO
Commande d'équilibrage. . . . . Médian

CONNEXION DE L'EQUIPEMENT	REGLAGE	REMARQUES
Connecter le compteur de fréquences à TP301 et la borne de masse à 98 MHz, non modulation avec entrée de 60 dB.	VR302	Régler VR302 pour une indication de 19 kHz ±50 Hz sur le compteur de fréquences.

ALIGNEMENT DE SEPARATION

Notes:

1. Modulateur stéréo: Connecter le modulateur stéréo à la borne EXT MOD du générateur de signaux.
2. Générateur de signaux: Taux de modulation du signal pilote de 19 kHz 9%
   Taux de modulation des signaux droit et gauche 30%
   Niveau de sortie . . . . . 60 dB
3. Tuner (commande d'équilibrage): Regler la commande d'équilibrage de manière à ce que le niveau de sortie des deux canaux soit équivalent.

CONNEXIONS DE L'EQUIPEMENT			REGLAGE	REMARQUES
GENERATEUR DE SIGNAUX	VOLTMETRE ELECTRONIQUE	OSCILLOSCOPE		
Connecter à la borne d'antenne EXT FM par une antenne fictive	Connecter à la prise de haut-parleur	VR301 (commande de séparation)	Connecter l'entrée d'ampli. vertical de l'écran au voltmètre électronique.	Régler VR301 pour une indication minimum du voltmètre électronique au niveau de la sortie gauche lorsque le signal stéréo de droite est modulé. Régler VR301 de la même manière que pour le côté droit. Régler de manière à obtenir le meilleur équilibre "Gche à Dte" et la meilleure séparation "Dte à Gche" possibles.

Note: Déconnecter le compteur de fréquences lors de l'alignement de séparation.

INSTRUCTIONS D'ALIGNEMENT

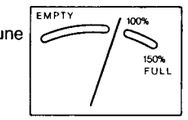
■ Platine magnétophone

OPERATION	POINT D'ALIGNEMENT	CONNEXION DU VOLTMETRE ELECTRONIQUE Positive	Négative	SELECTEUR DE BANDE	REGLAGE	REMARQUES
1	Vitesse du moteur	Haut-parleur	Haut-parleur	——	Rég. de tens. du moteur	Passer VTT656 et régler afin que le compteur de fréquences indique 3000 Hz ± 15 Hz
2	Prémagnétisation	TP403 (canal Gche)	TP401	METAL	VR808 VR807	Amener VR808 au centre et VR807 de manière à obtenir une différence d'indication de 0,1 mV sur chaque voltmètre électronique.
		TP402 (canal Drt)	TP401			
3	Polarisation d'effacement	TP801	TP802	METAL	VR809	Régler VR809 afin d'obtenir une indication de 140 + 10, − 5 mV sur le voltmètre électronique. (CrO_2: 135 ~ 150 mV)
4	Prémagnétisation	TP803 (canal Gche)	TP401	NORMAL	VR808	Régler VR808 afin d'obtenir une indication de 3,8 + 0,2; − 0,4 mV sur le voltmètre électronique. (CrO_2: 4,3 ~ 5,0 mV) Procéder de nouveau aux opérations 2 ~ 4.
		TP402 (canal Drt)	TP401			

ALIGNEMENT D'AZIMUT, DE DOLBY ET DE COURANT D'ENREGISTREMENT

OPERATION	POINT D'ALIGNEMENT	CONNEXION DU VOLTMETRE ELECTRONIQUE Positive	Négative	COMMUTATEUR DOLBY	ETAT DU MAGNETOPHONE	REGLAGE	REMARQUES
1	Azimut de tête d'enr/lec	Haut-parleur	Haut-parleur	OUT	REPRO	Vis de tête d'Enr/Lec	Reproduire une bande d'essai (VTT653) Agir sur la vis de tête d'Enr/Lect afin d'obtenir une sortie maxi. au haut-parleur
2	Niveau de Dolby	TP405 (canl Gche)	TP401	IN	REPRO	VR405	Reproduire une bande d'essai (VTT6130). Agir sur VR405 et VR406 pour obtenir une indication de 580 ± 20 mV sur le voltmètre électronique.
		TP404 (canal Drt)	TP401			VR406	
3	Courant d'enr.	TP403 (canal Gche)	TP401		ENR	VR403	Connecter TP802 à la broche 1 de MC5. Appliquer un signal de 1 kHz, 500 mV à TP404-TP401 et TP405-TP401 puis au régulateur de tension pour obtenir une indication de 410 mV par le voltmètre électronique. Régler VR403 et VR404 pour obtenir une indication de 0,40 ± 0,02 mV sur le voltmètre électronique.
		TP402 (canal Drt)	TP401			VR404	

ALIGNEMENT DE L'INDICATEUR

OPERATION	POINT D'ALIGNEMENT	SIGNAL D'ENTREE	REGLAGE	REMARQUES
1	VU-mètre	——	VR811 (can Drt) VR812 (can Gche)	Reproduire une bande d'essai (TMT-6130). Régler VR811 ou VR812 pour que le VU-mètre indique + 3 dB (repère□□).
2	Témoin de charge	——		Régler VR810 VR810 pour une déflexion de 150% avec une alimentation de 220 V CA  DECHARGE PLEINE CHARGE